School Mathematics Glossary

English | Inuktitut | French

ᓇᐃᓴᐅᓯᓚᓂᕐᒧᑦ ᐅᖃᐅᓯᓄᑦ

ᐃᓄᒃᑎᑐᑦ | ᖃᓄᐃᓕᓚᑐᑦ | ᐅᐃᕆᑎᑐᓄᑦ

Glossaire d'enseignement scolaire des mathématiques

Anglais | Inuktitut | Français

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ᑮᓇᐅᔭᖃᖅᑎᑕᐅᓯᒪᔪᑦ ᒐᕙᒪᑐᖃᒃᑯᑦ ᑮᓇᐅᔭᖃᖅᑎᕚᔮᖏᓐᓄᑦ, ᑲᓇᑕᒥ. ᐊᑐᖅᑕᐅᓪᓗᓂ ᑲᑐᔾᔨᖃᑎᒌᓐᓂᒃᑯᑦ ᐊᖏᖃᑎᒌᒍᑕᐅᓯᒪᔪᖅ ᐅᐃᑖᓄᑦ ᓄᓇᖃᖅᑲᖅᓯᒪᔪᓄᓪᓗ ᐅᖃᐅᓯᓕᕆᔾᔪᑎᓭᖏᓐᓄᑦ ᓄᓇᕙᐊᕐᒥ.

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ᐱᔪᓐᓇᐅᑎᒋᔭᐅᔪᓕᒫᑦ ᑎᒍᒥᐊᖅᑕᐃᓐᓇᓈᓪᓗᓂᒋᑦ

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Preface

Teaching of school mathematics, whatever the language of instruction, has traditionally employed a strikingly limited, if specialized, vocabulary: names for numbers, for process instructions ("add," "multiply"), for computational components ("dividend," "quotient," "remainder"), and for a minimum of content-related concepts ("cancel," "invert," "check," "odd," "even," "triangle," "cube"). Such vocabulary, with its limitations, has then tended to influence teaching and learning. What could and often did result was a mathematics of "worksheets" and of routine textbook "exercises," with a minimum of new terms and limited scope for deviation from an essentially linear plan.

Yet, over recent years in and beyond Baffin Region, Inuktitut speakers and others have repeatedly shared with me astute observations on how mathematics learning could be hampered by lack of vocabulary. This I see as a reflection of growing awareness, across Canada and internationally, that—whatever the language of instruction—mathematics learning is best rooted in rich language usage. One-page word lists, however resourceful, could not suffice in Inuktitut any more than they could have in English or in French.

Such recognition of vocabulary need can be seen as reflecting the spirit and intent of major professional documents of interprovincial and international import. The range of terminology selected for inclusion in the pages that follow, accordingly, has been influenced, on the one hand by Curriculum and Evaluation Standards for School Mathematics, 1989, and Professional Standards for Teaching Mathematics, 1991, of the (United States) National Council of Teachers of Mathematics, in particular the associated Curriculum standards for Grades K-4 and 5-8. (These documents are well extracted in Billstein, Libeskind, and Lott, A Problem Solving Approach to Mathematics for Elementary School Teachers, 5th ed. (Addison-Wesley, 1993), a text reference currently used in Eastern Arctic teacher preparation. The second influence on choice of terminology has been The Common Curriculum Framework for K-12 Mathematics of the Western Canadian Protocol for Collaboration in Basic Education: an "Interim NWT Version" of this forward-looking document has been widely available since 1995. The Grade 10 to Grade 12 supplement, 1996, should be studied to grasp the full scope of the program, but some of its vocabulary requirements necessarily are beyond the scope of this work.

The vocabulary of school mathematics should enrich and should be reinforced by thematic and interdisciplinary experiences. "Many possibilities for integrating learning experiences across the curriculum" are acknowledged in Mathematics K-9: Goals and Objectives, the recent (1990) Northwest Territories curriculum guide, which goes on to caution that "mathematics is a sequential discipline and concepts should be developed in the contest of mathematical instruction."

The plan of this glossary is to present the vocabulary and ideas for a rich and imaginative presentation of school mathematics through middle grades, with terms in Inuktitut, English, and French, and descriptions if not rigorous definitions of topics involved. Working with the Inuktitut-translation team at the Interpreter-Translator Program at Nunavut Arctic College has been a fascinating adventure of seeking—or creating—the *mot juste* to present meaningfully a mathematical concept to young people of Nunavut at a time when mathematical maturity will be vital to the realization of full potential.

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ᓇᓗᓇᐃᖅᓯᒋᐊᕈᑏᑦ ᐃᓗᓕᖏᓐᓂᒃ

ᓈᕴᐅᓯᕆᓂᓕᕆᑎᑦᑎᓂᖅ ᖃᓄᑐᐃᓐᓇᑦᑎᐊᖅ ᐃᓕᓴᐃᔾᑦ ᐅᖃᐅᓯᖃᕋᓗᐊᖅᑎᓪᓗᒋᑦ ᑖᒃᑯᓄᖓᑦᑕᐃᓐᓇᓪᓚᕆᑯᓗᒃ ᑐᕌᖓᔪᓂᒃ ᐅᖃᐅᓯᖅᑕᖃᖅᑎᑦᑎᒡᒍᖓᒪᑦ: ᓱᕐᓗ ᓈᕴᐅᑏᑦ ᐊᑎᖃᐅᖅᑐᑦ, ᖃᓄᐃᓕᐅᕐᑯᔾᓃᑦ ᑕᐃᒎᓯᖅᑕᖃᐅᖅᑐᑦ, ᖃᓄᐃᓕᐅᕈᓰᑦ ᐊᑎᖃᐅᖅᑐᑦ, ᐊᒻᒪᓗ ᖃᔾᔫᓐᓇᓪᓚᕆᑯᓗᖕᓄᑦ ᓈᕴᐅᓯᕆᓂᕐᒧᓪᓗᐊᑕᖅ ᑐᕌᖓᑎᑦᑎᔪᑦ. ᑕᒪᒃᑯᐊ ᐅᖃᐅᓰᑦ ᑭᒡᓚᐅᑦᑎᓯᒪᒡᒍᓗᐊᕐᓂᑯᖏᓐᓄᑦ ᐊᒃᑐᐊᓂᖃᕋᔪᖕᒪᑕ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᓂᕐᒧᓪᓗ ᓈᕴᐅᓯᕆᓂᐅᓪᓗ ᐃᓕᓐᓂᐊᖅᑕᐅᓂᖏᓐᓄᑦ. ᐃᒪᐃᓕᖓᕙᕙᔪᖕᓇᖅᓘᓂ, ᓇᐃᕴᐅᓯᕆᒋᐊᕌᖓᕕᒃ ᑎᑎᕋᖃᑕᒡᒍᖕᓖᓕᖅᓘᑎᒃ ᐸᐃᐸᐹᑎᒍᓪᓘᓐᓃᑦ ᓇᐃᕴᐅᓯᕆᔾᔭᑎᑎᒍᓪᓗᓃᑦ ᓄᑖᓂᒃ ᐅᖃᐅᓯᕐᓂᒃ ᐃᓕᑦᑎᕙᓪᓕᐊᙱᓕᖅᓘᑎᒃ ᐊᒻᒪᓗ ᑐᑭᓕᐊᑐᐃᓐᓇᖅᑯᔾᔭᒥᒃ/ᓯᐊᒻᒪᖅᐸᓪᓕᐊᑎᐃᓐᓇᖅᑯᔾᔭᒥᒃ ᐃᓕᓐᓂᐊᕈᓯᖅᑕᖃᖅᓘᓂ.

ᑭᓯᐊᓂᓕ ᐊᕐᕋᒍᓂ ᐊᓂᒎᓵᕐᓂᑰᓯᒪᓕᖅᑐᓂ ᕿᑭᖅᑖᓗᕐᒥ ᐅᖓᑖᓂᓗ, ᐃᓄᒃᑎᑐᑦ ᐅᖃᐅᓯᑖᑦ ᐅᕙᓐᓄᑦ ᓇᓗᓇᐃᖅᓯᓂᑰᕙᒃᓯᒪᓕᕐᒪᑕ ᐅᔾᔨᕆᓯᒪᔭᒥᖕᓂᒃ ᖃᓄᖅ ᓈᕴᐅᓯᕆᓂᕐᒥᒃ ᐃᓕᓐᓂᐊᕐᓂᖅ ᑲᑦᑐᖓᓂᖅᓴᐅᑎᑕᐅᔪᓐᓇᕆᐊᒃᓴᖓᓂᒃ ᐅᖃᐅᓯᖅᑕᖃᖅᑲᓪᓕᒃᓗᐊᕐᓂᖓᓄᑦ. ᑕᒪᓐᓇᓕ ᑕᐅᑐᒃᑲᒃᑯ ᐅᔾᔨᕈᓯᓕᖅᐸᓪᓕᐊᓂᐅᔪᕐᑯᑎᒋᓪᓗᒍ ᑲᓇᑕᓕᒫᒥ ᓄᓇᕐᔪᐊᕐᒥᐅᓂᓗ --ᖃᓄᑐᐃᓐᓇᖅ ᐅᖃᐅᓯᕐᒥᒃ ᐊᑐᖅᓱᑎᒃ ᐃᓕᓴᐃᒐᓗᐊᕈᑎᒃ--ᓈᕴᐅᓯᕆᓂᕐᒥᒃ ᐃᓕᓐᓂᐊᕐᓂᖅ ᐱᑦᑎᐊᖅᓯᒪᓂᖅᓴᐅᓇᔭᕆᐊᒃᓴᖓ ᓴᙱᑦᑎᐊᖅᑐᒥᒃ ᐅᖃᐅᓯᕐᒥᒃ ᐊᑐᕋᔭᕈᑎᒃ. ᐅᖃᐅᓯᕐᓂᒃ ᓇᓗᓇᐃᖅᓯᒍᑎᑦ ᐸᐃᑉᐹᕐᒧᑦ ᐊᑕᐅᓲᓐᓇᕐᒧᑦ ᓈᒻᒪᓯᓕᖅᓯᒪᔪᑦ ᓱᕙᓕᑭᐊᙴᓇᔭᕐᒪᑕ ᐃᓄᒃᑎᑑᖓᓕᖅᑎᓯᒪᓗᑎᒃ ᑕᐃᒫᑦᑕᐃᓐᓇᖅᑕᐅᖅ ᓱᕙᓕᑭᐊᙴᑎᕆᓇᔭᕐᓂᖓᑐᑦ ᖃᓪᓗᓈᑎᑐᓪᓘᓐᓃᑦ ᐅᐃᓈᑎᑐᓪᓘᓐᓃᑦ ᑎᑎᕋᖅᓯᒪᒐᓗᐊᖅᐸᑕ.

ᓈᕴᐅᓯᕆᔨᒻᒪᕇᑦ ᑲᓇᑕᒥᐅᑕᐅᔪᓪᓗ ᓄᓇᕐᔪᐊᓕᒫᕐᒥᐅᑕᐅᔪᓪᓗ ᐅᖃᖅᓯᒪᖕᒪᑕ ᐃᓕᓐᓂᐊᖅᑐᑦ ᓈᕴᐅᓯᕆᓂᕐᒧᑦ ᑐᕌᖓᔪᓂᒃ ᐅᖃᐅᓯᕐᓂᒃ ᖃᐅᔨᒪᔭᕆᐊᖃᕐᒪᑕ. ᑖᒃᑯᐊ ᐅᖃᐅᓲ ᑖᒃᑯᓇᓃᑦᑐᑦ ᐅᑯᓇᙵᑦ ᐱᓯᒪᔪᑦ: Curriculum and Evaluation Standards for School Mathematics, 1989, and Professional Standards for Teaching Mathematics, 1991, A Problem Solving Approach to Mathematics for Elementary School Teachers, 1993 ᐃᓕᓴᐃᔨᒃᓴᓄᓪᓗ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᔾᔪᑕᐅᕙᒃᓗᑎᒃ. ᐅᑯᓇᙵᓪᓗ ᐱᓯᒪᕐᒥᔪᑦ: The Common Curriculum Framework for K-12 Mathematics. ᑖᓐᓇᓗ ᓄᓇᑦᑎᐊᕐᒥ ᐊᑐᖅᑕᐅᓚᐅᑲᒃᑐᓕᐊᕆᔭᐅᓂᑰᓯᒪᓪᓗᓂ ᐱᔭᒃᓴᐅᓯᒪᓕᖅᑐᖅ 1995ᒥᑦ.

ᑕᐃᒃᑯᐊᓕ ᖁᙱᕙᓯᖕᓂᖕᓄᑦ 10ᒥᑦ 12ᒧᑦ ᐃᓚᒋᐊᕈᑎᒋᔭᐅᓯᒪᔪᖅ ᕿᒥᕈᐊᖅᑕᐅᑦᑎᐊᓪᓚᕆᐊᓕᒃ ᓱᓇᑦ ᐃᓕᓐᓂᐊᖅᑕᐅᓪᓗᐊᕐᒪᖔᑕ ᖃᐅᔨᓇᓱᒃᓗᒋᑦ, ᑭᓯᐊᓂᓕ ᐅᖃᐅᓯᖅᑕᕆᔭᐅᔪᑦ ᐅᑯᓄᖓ ᐃᓚᓕᐅᑎᓯᒪᓇᓱᒋᐊᒃᓴᖅ ᐱᔭᕆᑐᓗᐊᕋᔭᕐᒪᑕ.

ᐃᓱᒪᒋᔭᕋᓕ ᓈᕴᐅᓯᕆᓂᕐᒥᒃ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᑦᑎᐊᕐᓇᑖᕐᒍᓇᓱᒋᓪᓗᒍ ᐊᓯᖏᓐᓄᑦ ᐃᓕᓐᓂᐊᖅᑕᐅᕙᒃᑐᓄᑦ ᐃᓚᓕᐅᑎᕐᑲᓯᐅᑎᓯᒪᒍᓂ. ᑕᒪᓐᓇ ᐊᑐᕐᑯᔪᒥᒋᔭᐅᓯᒪᔪᖅ ᐃᓕᓐᓂᐊᖅᑐᓕᕆᔾᑯᓐᓂᑦ ᓈᕴᐅᓯᕆᓂᐅᑉ ᐃᓕᓐᓂᐊᖅᑕᐅᓂᖏᑦᑕ ᐊᔪᕆᖅᓲᔾᔨᔾᔪᑎᖏᑦᑎᒍᑦ Mathematics K-9: Goals and Objectives (1990). ᑭᓯᐊᓂᓕᑦᑕᐅᖅ ᑖᓯᒪᓂᑦᑕᐃᓐᓇᖅ ᐅᖃᖅᓯᒪᖏᒻᒪᑕ ᓈᕴᐅᓯᕆᓂᖅ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᔾᔪᑕᐅᔭᕆᐊᓕᒃ ᐊᓪᓗᐃᑦᑕᕐᓂᖅᑲᖅᑎᓯᒪᓇᓂ ᐃᓱᒪᒃᓴᖅᓯᐅᕈᑎᒋᑦᑎᐊᖅᓯᒪᔪᒥᒡᓗ ᐋᖅᑭᐅᒪᓂᖅᑎᑦᑎᐊᖅᑐᒥᒃ.

ᑖᒃᑯᐊ ᐅᖃᐅᓯᖃᕐᕖᑦ ᐃᑲᔪᖅᐸᓪᓕᕈᑎᐅᖁᔭᒃᑲ ᐃᓕᓴᐃᔨᓄᑦ ᐃᓕᓐᓂᐊᕐᕕᖕᓂ ᐊᑯᓪᓕᕐᓂ ᐃᓕᓐᓂᐊᖅᑎᑦᑎᔪᓂᒃ ᐃᓕᓴᐃᑦᑎᐊᕈᓐᓇᖁᓪᓗᒋᑦ ᐃᓕᓴᐃᔾᔪᓯᖃᕐᓗᑎᒃ ᐃᓕᓐᓂᐊᖅᑎᑕᑎᒃ ᐃᓱᒻ ᒪᒃᓯᒪᔪᒪᓂᖅᓴᐅᔪᓐᓇᖅᑎᓪᓗᓂᔾᔪᒃ. ᑖᒃᑯᓇᓂ ᓇᓗᓇᐃᕆᓇᓱᑲᑕᒃᓯᒪᔪᖑ ᐊᑐᖅᑕᐅᖃᑦᑕᕋᔭᖅᑐᓂᒃ ᐃᓕᓐᓂᐊᖅᑕᐅᕙᒃᑐᓂ ᐃᓕᓐᓂᐊᖅᖅᓯᑦᑎᓂᕐᒧᑦ ᐊᑐᒐᒃᓴᙳᖅᑎᑕᐅᓯᒪᔭᑎᒍᑦ. ᖁᕕᐊᒋᓪᓚᕆᓚᐅᖅᐸᕋ ᐱᓕᕆᖃᑎᖃᕆᐊᒃᓴᖅ ᐃᓄᒃᑎᑑᓕᖅᑎᕆᖅᑎᖃᕆᐊᒃᓴᖅ ᑐᓵᔨᒃᓴᓂ/ᑐᑭᒧᐊᒃᑎᕆᔪᒃᓴᓂ ᐃᓕᓐᓂᐊᖅᑕᐅᕙᒃᑐᓂᒃ ᓄᓇᕗᑦ ᓯᓚᑦᑐᖅᓴᕐᕕᖓᓂ ᐃᓕᓐᓂᐊᖃᑕᐅᔪᑦ ᖃᐅᔨᓇᓱᖃᑎᒋᓪᓗᑎᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐅᖃᐅᓯᓕᐅᖃᑎᒋᓇᓱᒃᓗᒋᑦ ᑕᒪᒃᑯᐊ ᓇᐅᓴᐅᓯᕆᔾᔪᓰᑦ ᖃᓄᖅ ᐅᖃᑦᑎᐊᖅᓯᒪᓛᖑᔪᓐᓇᕿᓴᕆᐊᒃᓴᖏᓐᓂᒃ ᐊᑐᒐᒃᓴᙳᖁᓪᓗᒋᑦ ᓄᓇᕗᒻᒥᐅᑦ ᒪᒃᑯᒃᑐᖏᓐᓄᑦ. ᒫᓐᓇᒃᑯᑦ ᓄᓇᕗᑦ ᐃᓄᖃᕆᐊᖃᓪᓚᕆᓕᕐᒪᑦ ᓇᐃᓴᐅᓯᕆᔾᔪᓯᕐᓂᒃ ᑐᑭᓯᐊᔪᓂᒃ.

ᑖᓐ ᐋᓚ
ᓴᓪᓕᓂ ᓄᓇᑦᑎᐊᕐᒥ

Préface

L'enseignement scolaire des mathématiques, quelle que soit la langue dans laquelle on l'enseigne, a par tradition, utilisé un vocabulaire étonnamment limité, même s'il était spécialisé : des noms pour les nombres, pour les fonctions opératoires (« ajouter », « multiplier »), pour les composants de calcul (« dividende », « quotient », « reste »), et pour un minimum de concepts relatifs au contenu (« effacer », « inverser », « vérifier », « impair », « pair », « triangle », « cube »). Un tel vocabulaire, avec ses limites, a ensuite eu tendance à influencer l'enseignement et l'apprentissage. Ce qui pouvaient en résulter le plus souvent furent des « fiches de travail » et des « manuels d'exercices » pratiques de mathématiques, avec un minimum de nouveau et un objectif limité pour ce qui est de la variation par rapport à un programme pour l'essentiel linéaire.

Pourtant, au cours de ces dernières années dans la région de Baffin et au-delà, les personnes qui parlent l'inuktitut et d'autres personnes m'ont à plusieurs reprises fait des remarques très pertinentes sur la façon dont l'apprentissage des mathématiques pouvait être gêné par un manque de vocabulaire. Je considère cela comme le reflet d'une prise de conscience grandissante, dans tout le Canada et à l'échelle internationale qui, peu importe la langue d'enseignement, montre que l'apprentissage des mathématiques est mieux enraciné dans un usage d'une langue riche. Une page de listes de mots, aussi pleine de ressources soit-elle, ne suffirait pas en inuktitut pas plus qu'elle n'aurait suffi en anglais ou en français à y parvenir.

Une telle reconnaissance de besoins en vocabulaire peut être perçue comme réfléchissant l'esprit et la lettre de documents professionnels importants d'origine interprovinciale ou internationale. L'éventail de la terminologie sélectionnée pour être incluse dans les pages qui vont suivre a été par conséquent influencé, d'un côté, par les ouvrages suivants : Programme et normes d'évaluation pour l'enseignement scolaire des mathématiques (Curriculum and Evaluation Standards for School Mathematics), publié en 1989 et Normes professionnelles pour l'enseignement des mathématiques (Professional Standards for Teaching Mathematics), publié en 1991 (aux États-Unis) par le Conseil national des enseignants de mathématiques (National Council of Teachers of Mathematics), tout particulièrement les Normes du Programme annexe pour les années K-4 et 5-8 (Ces documents sont cités dans l'ouvrage de Billstein, Libeskind et Lott : Une approche de résolution de problèmes relative aux mathématiques pour les enseignants des écoles élémentaires (A Problem Solving Approach to Mathematics for Elementary School Teachers) 5ème édition (chez Addison-Wesley, 1993), un texte de référence utilisé à l'heure actuelle dans la région Est de l'Arctique pour la préparation des enseignants. D'un autre côté, le deuxième type d'influence sur le choix de la terminologie trouve ses origines dans Le cadre de Programme commun pour les mathématiques pour K-12 (The Common Curriculum Framework for K-12 Mathematics) du Protocole de l'Ouest du Canada pour la collaboration pour une éducation de base (Western Canada Protocol for Collaboration in Basic Education) : une « version pour les TNO » de ce document avant-gardiste a été largement diffusée depuis 1995. Le supplément d'enseignement allant de la 10ème à la 12ème année de 1996 devrait être

examiné afin de saisir toute la portée du programme, cependant certaines obligations concernant le vocabulaire vont nécessairement au-delà de l'objectif de cet ouvrage.

Le vocabulaire de l'enseignement des mathématiques scolaires devrait s'enrichir et devrait être renforcé par des expériences thématiques et interdisciplinaires. « De nombreuses possibilités visant à intégrer les expériences d'apprentissage dans l'ensemble du programme » sont identifiées dans Mathématiques K-9 : buts et objectifs, un guide récent (1990) sur les programmes des Territoires du Nord-Ouest, qui fait remarquer que les mathématiques sont une discipline séquentielle et que des concepts devraient être élaborés au cours de l'enseignement des mathématiques.

Ce guide a pour but de présenter le vocabulaire et les idées visant à une présentation riche et imaginative des mathématiques à l'école pour les années scolaires intermédiaires, avec des termes en inuktitut, en anglais et en français ainsi que les descriptions des sujets concernés à défaut de définitions rigoureuses. Le travail avec l'équipe de traduction en inuktitut du Programme d'Interprétation et de Traduction au Collège Nunavut de l'Arctique a constitué une aventure fascinante pour ce que je qualifierai de la recherche, ou de la création, du mot juste (*sic*) afin de présenter avec une certaine signification un concept des mathématiques aux jeunes du Nunavut à un moment dans leur histoire où la maturité des mathématiques sera essentielle pour la réalisation de l'intégralité de leur potentiel.

Don Allen
Coral Harbour, Nunavut

A

Abacus: ᓈᓴᐃᔾᔪᑏᑦ ᓄᕕᓯᒪᔪᑦ: naasaijjutiit nuvisimajut: boulier compteur

A sliding bead computational device of long tradition both in western (Roman) and oriental society. A bead abacus can have classroom use in introducing and demonstrating place value and in performing a range of computations.

Abscissa: ᓴᓂᒧᐊᖓᔪᒥᒃ ᑐᑭᒧᐊᖓᔪᒥᓪᓗ ᓈᓴᐅᑎᖃᕐᕕᓕᒃ: sanimuangajumik tukimuangajumillu naasautiqarvilik: abscisse

The term for the first coordinate or "x-coordinate" in an ordered pair. The abscissa gives the directed distance, measured horizontally, of a point from the vertical (YOY1) axis.

Abundant Number: ᓈᓴᐅᑎᒥᒃ ᐊᕕᑦᑐᐃᒍᓐᓇᖅᑐᓕᒫᑦ ᑲᑎᓚᐅᕐᓗᒋᑦ ᐅᖓᑖᓅᓗᐊᖅᑐᑦ: naasautimik avittuigunnaqtulimaat katilaurlugit ungataanuuluaqtut: nombre abondant

When numbers are classified as perfect, deficient, or abundant, an abundant number is a number the sum of whose proper divisors is greater than the number. That is, we sum divisors which are less than the number itself (proper divisors) and obtain a result greater than the number. Thus, proper divisors of 12 are 6, 4, 3, 2, and 1; 6 + 4 + 3 + 2 + 1 = 16, which is greater than 12, so 12 is an abundant number.

Accuracy: ᓇᓛᒎᑦᑎᐊᕐᓂᖅ: nalaaguuttiarniq: exactitude

A consideration of the possible error inherent in an estimate or a measurement.

Acute Angle: ᓄᕝᕗᑦᑎᐊᕆᑦᑐᖅ ᑎᕆᖅᑯᖅ: nuvvuttiarittuq tiriqquq: angle aigu

An angle whose measure is less than that of a right angle: that is, an angle between 0° and 90°.

Acute Triangle: ᓄᕝᕗᑦᑎᐊᕆᑦᑐᑦ ᑎᕆᖅᑯᓕᒫᖏᑦ ᖁᐊᒡᔪᐊᖅᑐᖅ: nuvvuttiarittut tiriqqulimaangit quagjuaqtuq: triangle aigu

A triangle all three of whose angles are acute.

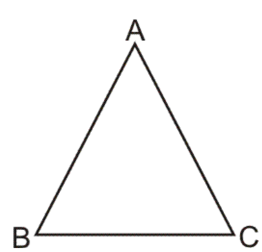

Figure 1: Acute Triangle

Add (Verb): ᑲᑎᑎᕆᔪᖅ: katitirijuq: additionner

To bring together two or more quantities.

Addend: ᑲᑎᐅᑎᔪᑦᓴᖅ: katiutijutsaq: une des quantités additionnées

One of two or more numbers being added.

Addition: ᑲᑎᑎᕆᓂᖅ: katitiriniq: addition

A combining operation. The result of addition is called the sum.

Algebra: ᑎᑎᖅᑲᑦ ᓈᓴᐅᑎᙳᖅᑎᒋᐊᓖᑦ: titiqqat naasautinnguqtigialiit: algèbre

The branch of mathematics which extends operations, relations, and principles of literal (variable) quantities.

Analytic Geometry: ᓴᓂᒧᐊᖓᔪᓂᒃ ᑐᑭᒧᐊᖓᔪᓂᓪᓗ ᓈᓴᐅᑎᖃᕐᕕᒻᒥ ᓴᓇᒪᔪᓕᕆᓂᖅ: sanimuangajunik tukimuangajunillu naasautiqarvimmi sanamajuliriniq: géométrie analytique

A geometry approached through coordination and identification of lines and other figures with algebraic relations.

Angle: ᑎᕆᖅᑯᖅ: tiriqquq: angle

The geometric figure which represents the union of two rays having a common end point. Commonly, the degree measure of the angle. Angle concepts encountered in school mathematics include acute angle, right angle, obtuse angle, straight angle, reflex angle, directed (signed) angle, and coterminal angles.

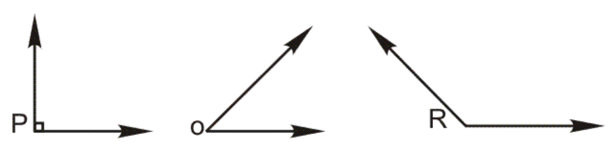

Figure 2: Angles: Right, Acute, Obtuse

Apex: ᓄᕗᐊ ᖁᑦᓯᓐᓂᖅᐹᖅ: nuvua qutsinniqpaaq: sommet
The uppermost point of such a solid as a pyramid or cone.

Area: ᐃᓗᐊᑕ ᐊᖏᓂᖓ: iluata angininga: superficie

The measure of the interior of a closed curve; the interior of.

Arithmetic: ᓈᓴᐅᓯᕆᓂᖅ: naasausiriniq: arithmétique

The branch of mathematics which deals primarily with whole numbers and fractions, whole number and fraction operations, and properties of these operations. The subject extends to a "higher arithmetic" taught as Theory of Numbers.

Average: ᐊᑯᓪᓕᖅᐹᖅᓯᐅᕐᓂᖅ ᓈᓴᐅᑎᓂ: akulliqpaaqsiurniq naasautini: moyenne

A measure of central tendency. Reference could be to the mean, median, or mode, but usual classroom practice is to identify "average" with the mean.

Axiom: ᓇᓗᒋᔭᐅᙱᑦᑐᖅ ᓱᓕᓂᖓᓂᒃ: nalugijaunngittuq sulininganik: axiome

An assumption requisite to the development of a mathematical system.

Axiomatic System: ᖃᐅᔨᒪᔭᐅᔪᖅ ᓱᓕᓂᖓᓂᒃ: qaujimajaujuq sulininganik: système axiomatique

An organized system of assumptions to facilitate the development of a mathematical system.

Axis: ᓈᓴᐅᑎᖃᕐᕕᒃ: naasautiqarvik: axe

A line of reference. Rectangular systems have *x* and *y* axes (two dimensions) or *x*, *y*, and *z* axes (three dimensions). A figure may possess one or more axes (lines) of symmetry.

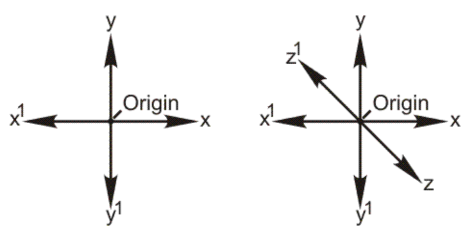

Figure 3: Axes in two and three dimensions

Axis Of Symmetry: ᐃᓪᓗᒌᒃ ᐊᔾᔨᒌᒃ ᐊᑯᓐᓂᙴᐊᖓ: illugiik ajjigiik akunninnguanga: axe de symétrie

A line about which a figure is symmetrical. Children may encounter this concept through folding and cutting. The process can yield halves which are mirror images, with one or more folds as axes of symmetry.

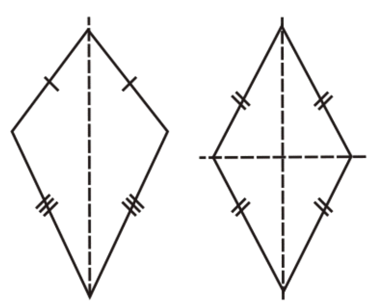

Figure 4: Kite, showing one Axis of Symmetry, and Rhombus, showing two Axes of Symmetry

B

Bar Graph: ᑎᑎᖅᑑᔭᖅᓯᒪᔪᑦ ᑭᑉᐹᕆᑦᑐᑯᑖᑦ ᖃᐅᔨᓴᐅᑏᑦ: Titiqtuujaqsimajut kippaarittukutaat qaujisautiit: graphique à barres

A type of statistical graph where the height (or length) of a bar is proportional to a quantity under investigation.

Base: ᐊᒥᓱᕈᖅᑕᖅ: Amisuruqtaq: base

The base may serve as a useful reference in viewing a plane or solid geometric figure. Thus, we may consider the base and altitude of a triangle, with the base a line or line segment, or the base and altitude of a pyramid, with the base a polygonal region. In numeration, base may refer to the place-value scale of notation, as "base ten numeration."

Biased Sample: ᒪᕐᕉᓈᖅᑎᕆᓗᓂ ᑭᓯᐊᓂ ᓈᓴᐅᓯᕆᒍᓐᓇᕐᓂᖅ: marruunaaqtiriluni kisiani naasausirigunnarniq: catégorie à tendance

A statistical sample which is not random and from which, therefore, general conclusions cannot be reliably drawn. Asking people coming out of a political office how they plan to vote would provide a biased sample if the statistical study were of the general population.

Billion: ᕕᓕᐊᓐ: vilian: billion

In American and Canadian-English usage, one thousand million (10^9). In European and in Canadian-French usage, one million million (10^{12}). (In this convention, one thousand million is called a milliard.)

Binary Operation: ᒪᕐᕉᓈᖅᑎᕐᓗᓂ ᑭᓯᐊᓂ ᓈᓴᐅᓯᕆᓂᖅ: marruunaaqtirluni kisiani naasausiriniq: opération binaire

A mathematical operation which is performed on two members of a set. Addition, subtraction, multiplication, and division of whole numbers are examples of binary mathematical operations. Contrast this with "unary," performed on a single member. Finding the negative of a number or the reciprocal of a number is a unary operation.

Bisect (Verb): ᑎᕆᖅᑯᓕᐅᕐᓂᖅ: tiriqquliurniq: bissecter

To divide into two parts. Bisecting of an angle and bisecting of a line segment are common geometric procedures. In each instance, division is into equal parts.

Blocks: ᐊᐅᕕᐅᔭᑦ: auviujat: cubes

Blocks in the shape of cubes or rectangular prisms have use in developing a sense of shape or pattern in geometry and in classification, counting, and other number-related activities. Plastic blocks of 1 cm and 2 cm are widely marketed for such purposes.

Box: ᐃᑦᑎᕐᕕᐅᔭᖅ ᕿᔪᖁᑎ: ittirviujaq qijuquti: boîte

The usual "box" shape is that of a rectangular prism. Its volume or capacity is obtained as the product of length times width times height.

Brackets: ᐅᖁᑖᙳᐊᒃ: uquutannguak: crochets

Such grouping symbols as parentheses ( ), square brackets [ ], and braces { } are used to indicate that a bracketed mathematical expression is to be treated as a single quantity. Thus, 3(4 + 5) means 3 x 9, or 27. *See Order of Operations.*

C

Cancel (Verb): ᖁᔭᓈᖅᑕᖅ: qujanaaqtaq: annuler

In fraction multiplication and in the reduction of a fraction to lower terms, it is usual to "cancel" a factor common to numerator and denominator. This "cancellation" is equivalent to division by n/n, or 1, where n is the common factor.

Capacity: ᐃᓗᓕᖅᑲᕈᓐᓇᕐᓂᖓ: iluliqarunnarninga: capacité

A measure of the interior volume of a container. Volume and capacity units (e.g. cubic centimetre, millilitre) are used interchangeably.

Centimetre: ᓴᓐᑕᒦᑕ: santamiita: centimètre

A unit of length or distance measure equivalent to one one-hundredth of a metre. The symbol is cm. The centimetre is a convenient classroom unit and is used for most body measurements and clothing sizes. Where greater precision is desired, the millimetre unit (0.1 cm) is commonly employed.

Centre: ᕿᑎᐊ: qitia: centre

The centre of a circle (or ellipse or other figure) is the centre of symmetry of the figure.

Centre Of Rotation: ᐅᐃᔾᔮᖅᑑᑉ ᕿᑎᖓ: uijjaaqtuup qitinga: centre de rotation

The point about which a geometric figure is rotated or turned.

Chord: ᐊᒻᒪᓗᑭᑖᑉ ᐃᓗᐊᓂ ᑐᑭᒧᐊᖓᔪᖅ: ammalukitaap iluani tukimuangajuq: corde

A chord of a circle or other figure is a line segment whose endpoints lie on the figure. In a circle, the chord of greatest length passes through the centre and is called the diameter.

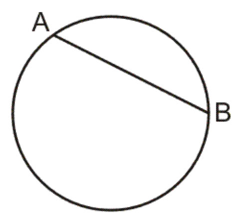

Figure 5: Chord of a Circle

Circle: (ᐊᒻᒪᓗᖅᑐᖅ) ᓄᕐᓗ: (ammaluqtuq) nurlu: cercle

A geometric figure all points on which are equidistant from a fixed point, called the centre. The distance is the radius. Note that, so defined, the circle is the "hoop," not the "disc."

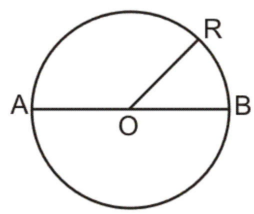

Figure 6: Circle: O is the Centre, OR is a Radius, AB is a Diameter

Circle Graph: ᑎᑎᖅᑑᔭᖅᓯᒪᔪᖅ ᐊᒻᒪᓗᑭᑖᖅ ᖃᐅᔨᓴᐅᑎᒥᓂᖅ: titiqtuujaqsimajuq ammalukitaaq qaujisautiminiq: graphique à cercle

A graph in which parts of a whole are proportionally represented by sectors of a circle. Also called a "pie chart."

Circumference: ᐊᒻᒪᓗᑭᑖᑉ ᓯᓇᕐᔪᖓᓂᒃ ᐆᑦᑐᕋᕐᓂᖅ: ammalukitaap sinarjunganik uutturarniq: circonférence

The measure of the perimeter of a circle. The word "circumference" is sometimes used to refer to the circle itself (*see Circle*). All circles have the same shape, and the circumference is a constant (π = 3.14+) times the diameter.

Circumscribe: ᓴᓇᒪᓂᐅᑉ ᓯᓚᑖᓂ ᓴᓇᒪᓂᓕᐅᕐᓂᖅ ᐊᑐᐊᓗᒍ: sanamaniup silataani sanamaniliurniq attualugu: circonscrire

To construct a circle passing through the vertices. Thus, we draw perpendicular bisectors of the sides to circumscribe a circle about a triangle.

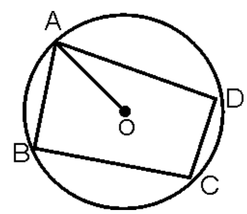

Figure 7: The Circle, centre O, radius OA, is circumscribed about Quadrilateral ABCD

Classification: ᐊᔾᔨᒌᓂᒃ ᑲᑎᑦᑎᓂᖅ: ajjigiinik katittiniq: classification

Classification is an early and essential procedure in mathematics learning and a fundamental process skill in science learning. Attribute blocks are a useful manipulative for teaching classification skills.

Classify (Verb): ᐊᔾᔨᒌᑦ ᑲᑎᑎᕐᓗᒋᑦ: ajjigiit katitirlugit: classifier

To organize numbers, shapes, or other entities according to common characteristics. Thus, numbers might be classified as even or odd; unit, prime, or composite; or perfect, abundant, or deficient. Polygons might be classified as regular or not regular, or by number of sides.

Closed Curve: ᐊᑐᐊᒐᖅ ᐱᒋᐊᙳᕐᓂᙵᓄᑦ ᑲᓱᖅᓯᒪᔪᖅ: atuagaq pigianngarninganut kasuqsimajuq: courbe close

A curve for which the ending point coincides with starting point.

Collect (Verb): ᓄᐊᑦᑎᓂᖅ/ᐊᕝᕗᕐᓂᖅ: nuattiniq/avvurniq: grouper

Children collect similar objects when being introduced to attributes and to classification.

Common Factor: ᓈᓴᐅᑎ ᐊᒡᒍᐃᔾᔪᑕᐅᒍᓐᓇᖅᑐᖅ ᐊᔾᔨᒌᙱᑦᑐᓄᑦ: naasauti agguijjutaugunnaqtuq ajjigiinngittunut: commun diviseur

A number which is a factor of, or which exactly divides, two or more numbers. Thus, 2, 3, and 6 all are common factors of 42 and 54.

Common Multiple: ᓈᓴᐅᑎᐅᑉ ᐊᔾᔨᒌᙱᑦᑐᑦ ᐊᒡᒍᖅᑕᐅᒍᓐᓇᕐᓂᖓ: naasautiup ajjigiinngittunut agguqtaugunnarninga: commun multiple

A number which is a multiple of two or more numbers. Thus, 100 and 1000 are common multiples of 5, 20, and 25.

Commutativity: ᑲᑎᖅᓱᖅᑕᐅᓂᐊᖅᑐᓂᒃ ᓈᓴᐅᑎᓂᒃ ᑭᐳᑦᑐᐃᓂᖅ: katiqsuqtauniaqtunik naasautinik kiputtuiniq: commutativité

The property of a mathematical operation which permits the operation to be applied to pairs of elements in either order. Thus, 8 + 5 gives the same result as 5 + 8 (addition of counting numbers is commutative), and 9 x 7 gives the same result as 7 x 9 (multiplication of counting numbers is commutative), but 2^3 is not 3^2 (exponentiation, like subtraction and division, is not commutative).

Compare (Verb): ᐊᔾᔨᒌᙱᓐᓂᖏᓐᓂ ᐊᔾᔨᒌᓐᓂᖏᓐᓂᓪᓘᓐᓃᑦ ᖃᐅᔨᓴᕐᓂᖅ: ajjigiinnginninginni ajjigiinninginnilluunniit qaujisarniq: comparer

Comparison of geometric shapes involves consideration of similarities and differences. Comparison of number expressions commonly calls for their ranking in order of size, using an "is less than," "is equal to," or "is greater than" relation.

Compasses: ᐊᖕᒪᓗᖅᑐᓕᐅᕈᑦ: angmaluqtuliurut: compas

Geometric instruments intended for the construction of circles and arcs of circles.

Complex Number: ᓈᓴᐅᑎ ᐃᓚᒍᑕᓕᒃ: naasauti ilagutalik: nombre complexe

An extension of the real number system to permit general solution of quadratic or higher-degree equations (senior high school). A complex number is a number of the form $a + bi$, where a and b are real numbers and i is the imaginary unit ($i^2 = -1$). An equation as "simple" in appearance as $x^2 + x + 1 = 0$ requires complex numbers for its solution.

Composite Number: ᐊᒥᓱᓄᑦ ᐊᕕᑦᑐᖅᑕᐅᒍᓐᓇᖅᑐᖅ: amisunut avittuqtaugunnaqtuq: nombre composé

A counting number is said to be composite if it has more than two divisors. Thus 15, which has divisors 15, 5, 3, and 1, is a composite number. *See Prime Number.*

Concave: ᓴᓇᒪᓂᖅ ᐊᒻᒪᓗ ᑭᑖᖑᔭᕐᒥᒃ ᐃᓗᒻᒧᐊᖑᓂᓕᒃ: sanamaniq ammalukitaangujarmik ilummuanganilik: concave

A polygon is said to be concave (not convex) when one or more of its angles is reflex (greater than a straight angle).

Concurrent: ᑕᕝᕘᓇᑦᓴᐃᓐᓇᖅ ᐊᖅᑯᓵᖅᑕᖅᑐᑦ: tavvuunatsainnaq aqqusaaqtaqtut: concurrent

Figures are said to be concurrent if they pass through a common point. Thus, in geometry, the three angle bisectors of a triangle are concurrent.

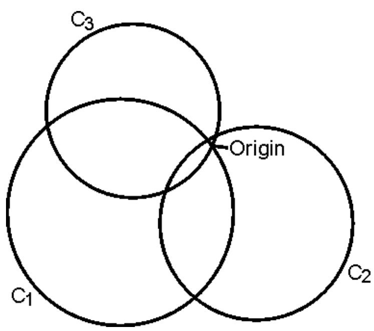

Figure 8: Concurrent Circles

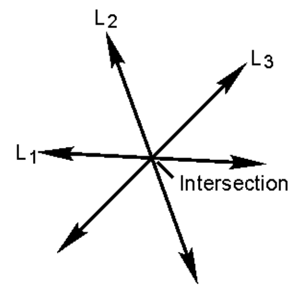

Figure 9: Concurrent Lines

Conditional: ᐱᒍᓂ ᑭᓯᐊᓂ: piguni kisiani: conditionnel

A statement such as "if a quadrilateral is a square, then it is a rectangle" ("if *p* then *q*," or "*p* implies *q*") is said to be a conditional statement.

Cone: ᖁᖑᒐᔪᖅ: ququngajuq: cône

A geometric figure having a curved base (commonly a circle), rising to a point as vertex. The volume of a cone is one-third the product of area of the base times the vertical height.

Congruent: ᓴᓇᒪᓃᑦ ᐊᔾᔨᒌᑦ ᐊᑦᑐᐊᓂᖏᑦ: sanamaniit ajjigiit attuaningit: congru

Figures are congruent when they are alike in all aspects and are capable of being superimposed. Thus, we have congruent line segments, congruent angles, congruent polygons. In a modular system, numbers are said to be congruent when they leave the same remainder on division by the modulus.

Convex: ᓴᓇᒪᓂᖅ ᐊᒻᒪᓗᑭᑖᖑᔾᔭᕐᒥᒃ ᓯᓚᒻᒧᐊᖓᓂᓕᒃ: sanamaniq ammalukitaangujarmik silammuanganilik: convexe

A polygon is said to be convex when none of its angles exceeds a straight angle.

Coordinate: ᓴᓂᒧᐊᖓᔪᖅ ᓈᓴᐅᑎᖃᕐᕕᒃ: sanimuangajuq naasautiqarvik: coordonnée

The number denoting position on a line, or number one of the pair of numbers denoting position on the coordinate plane, or one of the triple of numbers denoting position in coordinate space.

Correspondence: ᐊᐃᑉᐱᖅᑐᐃᓂᖅ/ᐃᓕᓯᓂᖅ: aippiqtuiniq/ilisiniq: correspondance

A matching, as between numbers and points as a line.

Count (Verb): ᓈᓴᐃᓂᖅ: naasainiq: compter

When we count, we match objects in a set to the counting numbers, 1, 2, 3 ...

Counting Numbers: ᓈᓴᐃᔾᔪᑏᑦ: naasaijjutiit: nombres naturels

The numbers with which we count, starting with 1 (namely 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 ...) are called counting numbers or natural numbers.

Cube (Figure): ᓯᒃᑭᑦᑕᖅ: sikkittaq: cube

A mathematical solid bounded by six congruent square faces which meet at right angles. A cube has six faces, twelve edges, and eight vertices. As a polyhedron, a cube is a regular hexahedron.

Cube A Number (Verb): ᓈᓴᐅᑎᐅᑉ ᐃᒻᒥᓄᑦ ᐱᖓᓱᐊᖅᑎᕐᓗᓂ ᐊᒥᓱᕈᖅᑕᕐᓂᖓ: naasautiup imminut pingasuaqtirluni amisuruqtarninga: cuber

When we cube a number we compute the product of three factors, each factor being equal to the number. Thus, 4^3 (read "four cubed") is 4 × 4 × 4, or 64.

Cube Of A Number: ᓈᓴᐅᑎᐅᑉ ᐱᖓᓱᐊᖅᑎᖅᑐᒍ ᐊᒥᓱᕈᖅᑕᕇᕋᒥ ᖃᔅᓯᐅᓂᖓ: naasautiup pingasuaqtiqtugu amisuruqtariirami qassiuninga: nombre du troisième degré

The result which we obtain when we raise the number to the third power: that is, calculate the product of three factors each equal to the number.

Cube Root Of A Number: ᓈᓴᐅᑦ ᐱᖓᓱᐊᖅᑎᕐᓗᒍ ᐊᒥᓱᕈᖅᑕᖅᑐᖅ: naasaut pingasuaqtirlugu amisuruqtaqtuq: racine cubique

One of three equal quantities which multiply to give a number. Thus, 6 × 6 × 6 = 216, so 6 is the cube root of 216. The concept arises, for example, when we are told that a cube has a volume of, say, 1000 cm^3, and are asked the length of its edge (10 cm). Most cube roots are given as decimal approximations.

Cubic Centimetre: ᓴᓐᑎᒦᑕᑲᓪᓚᐅᑉ ᐃᓗᑐᓂᖓ: santimiitakallaup ilutuninga: centimètre cubique

A unit of volume or capacity measure equivalent to a cube 1 centimetre on an edge.

Cubic Metre: ᒦᑕᑲᓪᓚᐅᑉ ᐃᓗᑐᓂᖓ: miitakallaup ilutuninga: mètre cubique

A unit of volume or capacity measure equivalent to a cube 1 metre on an edge.

Cubic Number: ᓈᓴᐅᑦ ᐱᖓᓱᐊᖅᑎᖅᑐᒍ ᐊᒥᓱᕈᖅᑕᖅᓯᒪᔪᖅ: naasaut pingasuaqtiqtugu amisuruqtaqsimajuq: nombre cubique

A "perfect cube"; a number which can be written as the product of three equal integral (or rational) factors. Thus, 512 (= 8 × 8 × 8) is a cubic number, while 600 is not.

Curve: ᐊᑐᐊᒐᖅ: atuagaq: courbe

A figure which can be traced. A curve is open or closed (returns to its starting point), simple or non-simple (essentially, crosses itself). A straight line is regarded as a special case of a curve.

Cylinder: ᐅᓚᒥᖅᑕᖅ: ulamiqtaq: cylindre

A geometric figure having congruent parallel curved bases (usually circles), with straight sides (usually vertical). The volume of a cylinder is the product of the area of the base times the vertical height.

D

Decade: ᐅᑭᐅᑦ ᖁᓕᑦ: ukiut qulit: décennie

In time measure, an interval of ten years.

Decagon: ᖁᓕᓂᒃ ᓯᓇᕐᔪᓕᒃ: qulinik sinarjulik: décagone

A polygon having ten sides and ten angles. A regular decagon has equal sides and each angle is 144°.

Decimal Expression: ᓈᓴᐅᑦ ᑎᑦᑕᓕᒃ: naasaut tittalik: expression décimale

A decimal fraction is a fraction whose denominator is a power of ten. Thus, 3/10 and 769/100 are decimal fractions. A decimal expression is such a fraction written without denominators and using an extension of place value notation. The above fractions, so written, become 0.3 and 7.69. A decimal expression may be finite or infinite; it may terminate (3/20 = 0.15), repeat (5/6 = 0.8333...), or continue indefinitely without repeating (decimal expressions for $\sqrt{2}$ or π).

Decimal Marker: ᑎᑦᑕᖅ: tittaq: virgule

In decimal notation, an extension of place value; a marker is used to separate the whole number part from the decimal fraction part. In Canadian-English usage, the decimal marker is the point. This corresponds to practice in the United States and the United Kingdom but differs from most of the world. In Canadian-French usage, the decimal marker is the comma. This corresponds to practice in Continental Europe and in most other areas.

Deficient Number: ᓈᓴᐅᑎᒥᒃ ᐊᕕᑦᑐᐃᒍᓐᓇᖅᑐᓕᒫᑦ ᑲᑎᓚᐅᕐᓗᒋᑦ ᖃᑦᑏᓐᓇᐅᓗᐊᖅᑐᑦ: naasautimik avittuigunnaqtulimaat katilaurlugit qattiinnauluaqtut: nombre déficient

When numbers are classified as perfect, deficient, or abundant, a deficient number is a number the sum of whose proper divisors is less than the number. That is, we sum divisors which are less than the number itself (proper divisors) and obtain a result less than the number. Thus, proper divisors of 16 are 8, 4, 2, and 1; 8 + 4 + 2 + 1 = 15, which is less than 16, so 16 is a deficient number.

Definition: ᑐᑭᖓ: tukinga: définition

A statement of the meaning of a concept, normally in terms of more fundamental concepts. Thus, a quadrilateral is a four-sided figure; an equilateral triangle is a triangle having three equal sides.

Degree Of Angle Measure: ᑎᕆᖅᑰᑉ ᐃᖅᐸᖓᓂᖓ: tiriqquup iqpanganinga: degré de mesure de l'angle

A unit of angle measure equivalent to 1/360 of a rotation or 1/90 of a right angle.

Denominator: ᐊᓪᓕᖅ ᓈᓴᐅᑎ ᐃᓚᒍᑕᓕᓐᓂ: alliq naasauti ilagutalinni: dénominateur

The terms of a fraction are the numerator (above) and denominator (below). The line acts as a bracket and indicates division. The denominator tells the size, or denomination, of the fractional parts. Thus, in 5/7, the denominator 7 indicates that the parts are sevenths.

Depression: ᐃᑎᖅᓴᓕᐊᖑᓯᒪᔪᖅ: itiqsaliangusimajuq: abaissement

An angle of depression is an angle measured down from the horizontal.

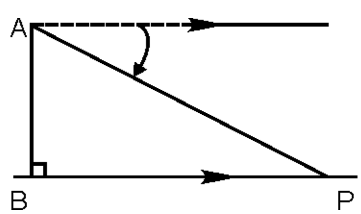

Figure 10: Angle of Depression (of P from A)

Describe (Verb): ᓇᓗᓇᐃᙵᐃᓂᖅ/ᓇᓗᓇᐃᔭᐃᓂᖅ: nalunainngainiq/nalunaijainiq: décrire

Children are frequently asked to describe a geometric figure or to describe a method of solution. In a more formal mathematical sense, we "describe" an arc in geometric construction when we use a compass to draw an arc of a circle.

Diagonal: ᐅᕕᖓᔪᖅ: uvingajuq: diagonale

A line segment joining two non-adjacent vertices of a polygon. The term "diagonal" may or may not apply to such a segment which lies outside a (concave) figure.

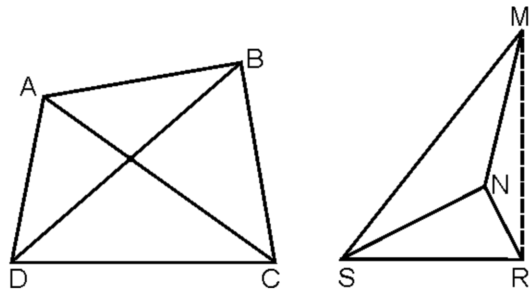

Figure 11: Diagonals of Cones, Concave Quadrilaterals

Diameter: ᐊᒻᒪᓗᑭᑖᑉ ᕿᑎᖓᒍᑦ ᑐᑭᒨᖓᔪᖅ: ammalukitaap qitingagut tukimuangajuq: diamètre

The greatest width of a figure. In a circle, a diameter is a chord which passes through the centre.

Difference: ᐊᔾᔨᒌᙱᓂᖓ: ajjigiinngininga: différence

The result in subtraction is called the difference. Thus, the difference of 8 and 5 is 8 – 5, or 3.

Digit: ᓈᓴᐅᑏᑦ ᐃᓂᖏ ᓴᓂᓕᕇᓕᖅᑎᑦᓯᒪᔪᑦ: naasautiit iningit saniliriiliqtitsimajut: chiffre

Any of the figures 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0, used in place value notation.

Digit Sum: ᑲᑎᑎᕆᓚᐅᕐᓗᓂ ᐃᓂᖓᓅᖅᑲᐃᓂᖅ ᓴᓂᓕᕇᓕᖅᑐᖅᓯᒪᔪᓂᒃ: katitirilaurluni ininganuuqqainiq saniliriiliqtuqsimajunik: somme des chiffres

The sum of the digits of a number. Thus, 1999 has digit sum 1 + 9 + 9 + 9, or 28. If the summing is continued until a simple digit is obtained (2 + 8 = 10, 1 + 0 = 1), the result is called the digital root. The digit sum occurs in the well-known check for divisibility by 3: three divides a number if and only if it divides the number’s digit sum.

Dilatation: ᐊᖏᓂᖓ ᒥᑭᓂᖓ ᐊᓯᔾᔨᖅᑐᖅ: angininga mikininga asijjiqtuq: dilatation

A transformation of a geometric figure in which the image has the same shape as the original figure but, in general, is different in size.

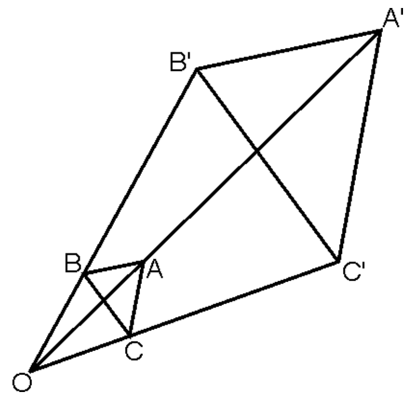

Figure 12: Triangle A'B'C' is the image of Triangle ABC under Dilatation, Centre O, Dilatation Factor 3

Dimension: ᐃᓗᑐᓂᖓ: ilutuninga: dimension

A linear measure such as length, width, height.

Discount: ᐊᑭᑭᓪᓕᒋᐊᖅᑐᖅ: akikilligiaqtuq: escompte

In the type of word problem that applies computational processes to buying and selling, a discount is normally expressed as a percentage of the regular selling price. Thus, a $10.00 item, at 20% discount, has its price discounted by $2.00 (20% of $10.00) and is sold for $8.00.

Display (Verb): ᓴᖅᑭᔮᖅᑎᑦᑎᓂᖅ: saqqijaaqtittiniq: montrer

To present visually. A calculator displays the result of a computation.

Dividend: ᓈᓴᐅᑎ ᐊᒃᒍᖅᑕᐅᓂᐊᖅᑐᖅ: naasauti agguqtauniaqtuq: dividende

In division, the quantity being divided. Dividend divided by divisor equals quotient, plus remainder. Thus, if 19 (the dividend) is divided by 3 (the divisor), the quotient is 6 and the remainder is 1.

Dividers: ᐅᖓᓯᓐᓂᖏᓐᓂᒃ, ᐊᖏᓂᖏᓐᓂᓪᓗ ᐆᑦᑑᑏᑦ: ungasinninginnik, angininginnillu uuttuutiit: compas à pointes sèches

A geometric instrument resembling a compass but having a metal "point" at each "leg."

Division: ᖃᑦᓯᐊᖅᑎᕐᓗᒍ ᐊᕕᑦᑐᕈᓐᓇᕐᓂᖓ: qatsiaqtirlugu avitturunnarninga: division

One of the four basic operations of elementary school mathematics, division may be regarded as the inverse of multiplication or as a process of repeated subtraction. Thus 63 ÷ 9 asks the number which multiplied by 9 gives 63 (division as the inverse of multiplication), or else asks how many times 9 can be subtracted from 63 (division as repeated subtraction).

Divisor: ᐊᕕᑦᑐᐃᔪᖅ ᓈᓴᐅᑎ: avittuijuq naasauti: diviseur

In division, the number being divided by. Thus, in 43 ÷ 7 = 6, remainder 1, 7 is the divisor, 43 is the dividend, 6 is the quotient, and 1 is the remainder.

Dodecagon: ᖁᓕᓂᒃ ᒪᕐᕉᓐᓂᓪᓗ ᓯᓇᕐᔪᓕᒃ: qulinik marruunnillu sinarjulik: dodécagone

A polygon having twelve sides and twelve angles. A regular dodecagon has twelve equal sides and angles of 150°. Recent Canadian one-cent pieces are dodecagonal in shape.

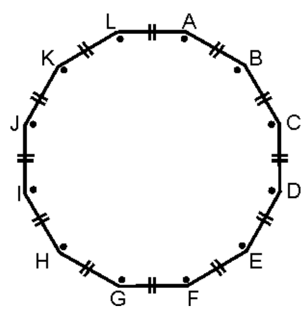

Figure 13: Regular Dodecagon

Dodecahedron: ᖁᓕᓂᒃ ᒪᕐᕉᓐᓂᓪᓗ ᐊᔾᔨᒌᓂᒃ ᖄᓕᒃ: qulinik marruunnillu ajjigiinik qaalik: dodécaèdre

A polyhedron having twelve faces. A regular dodecahedron has twelve congruent pentagonal faces which meet in congruent angles. A regular dodecahedron often is seen as a plastic desk calendar having one month on each face.

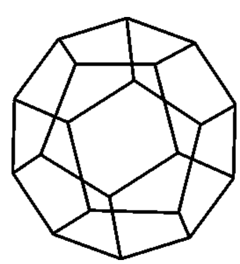

Figure 14: Regular Dodecahedron

Domain: ᓈᓴᐅᑎᑦ ᑲᒪᒋᖃᓯᐅᑎᓂᐅᓴᔪᑦ: naasautit kamagiqasiutiniusajut: domaine

In the study of relations or functions, the set of values to which the relation applies; that is, the set of "input values," the set of first members of the ordered pairs.

Domino: ᓯᑭᑦᑕᓪᓛᔪᖅ ᒪᕐᕈᐆᓐᓂᒃ: sikittallaajuq marruunnik: domino

A playing piece of a traditional game each featuring a dot pattern similar to a pair of dice, extending from double-zero through double-six or double-nine. Such dominoes are used in a range of matching and counting activities. Also, a figure or manipulative (polyomino) made of two squares sharing a common side.

E

Edge: ᓯᓇᕐᔪᒃ: sinarjuk: bord

In a geometric solid, two faces intersect in an edge. Two or more edges intersect in a vertex.

Eight: ᓯᑕᒪᐅᔪᖅᑐᑦ/ᐊᕐᕕᓂᓕᒃ ᐱᖓᓱᓂᒃ: sitamaujuqtut/arvinilik pingasunik: huit

8; the eighth counting number.

Equal: ᓇᓕᒧᑦᑐᖅ: nalimuttuq: égal

Equality in school mathematics refers to equality of numbers or of measures.

Equal Sign: ᓇᓕᒧᒌᓐᓂᕋᐃᔾᔪᑦ: nalimugiinniraijjut: signe d’égalité

The sign "=" meaning "equals" or "is equal to."

Equation: ᓈᓴᐅᑏᑦ ᑕᐃᒪᐃᓪᓗᐊᕈᓐᓇᕐᓂᖏᑦ: naasautiit taimailluarunnarningit: équation

A statement of equality. Thus, $3 + 5 = 8$, and $5^2 + 2^2 = 2^5 - 3$ are equations.

Equilateral Triangle: ᖁᐊᒡᔪᐊᖅᑐᖅ ᓇᓕᒧᑦᑐᓂᒃ ᓯᓇᕐᔪᓕᒃ: quagjuaqtuq nalimuttunik sinarjulik: triangle équilatéral

A triangle having three equal sides and, accordingly, three equal angles, each of 60°.

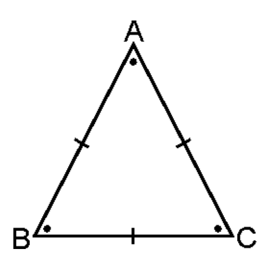

Figure 15: Equilateral Triangle

Estimate (Noun): ᓇᓚᐅᑦᑖᒐᖅ: nalauttaagaq: estimation

An estimate serves to test the reasonableness of a result of computation. Thus, 79 x 82 might be estimated as close to 6400 (80 x 80), confirming the reasonableness of the calculator result, 6478.

Estimate (Verb): ᓇᓚᐅᑦᑖᕐᓂᖅ: nalauttaarniq: estimer

One estimates, for example, the number of marbles in a jar, then counts to confirm the estimate.

Euler's Formula: ᐃᐅᓕᐅᑉ ᒪᓕᒐᓕᐊᕆᓯᒪᔭᖓ ᓈᓴᐅᓯᕆᓂᕐᒧᑦ: iuliup maligaliarisimajanga naasausirinirmut: formule d'euler

In solid geometry, the relation connecting the number of vertices (V), faces (F), and edges (E) of a polyhedron ($V + F = E + 2$).

Even Number: ᐊᓪᓗᐃᑦᑕᖅᑐᑦ ᓈᓴᐃᓂᖅ 2-ᒥᑦ ᐱᒋᐊᕐᓗᒍ: alluitttaqtut naasainiq 2-mit pigiarlugu: nombre pair

A multiple of 2: that is, a number which leaves no remainder on division by 2.

Event (Probabilities): ᖃᓄᐃᑦᑑᒍᓐᓇᕐᓂᓕᒫᖓ: qanuittuugunnarnilimaanga: cas

An occurrence with which a probability can be associated. Thus, when two dice are rolled, the outcome, "sum of seven," is an event, having probability 6/36, or 1/6.

Exponent: ᓈᓴᐅᑎᐅᑉ ᐊᒥᓱᕈᖅᑕᐅᑎᖓ: naasautiup amisuruqtautinga: exposant

The number of expression indicating the power to which a quantity is to be raised. Thus, 2^5 (= 32) has exponent 5.

Exponential Function: ᓈᓴᐅᑎᐅᑉ ᐊᒥᓱᕈᖅᑕᐅᑎᖓᑕ ᐊᒥᓱᕈᖅᐸᓪᓕᐊᓂᖓ: naasautiup amisuruqtautingata amisuruqpallianinga: fonction exponentielle

A function in which the variable occurs in the exponent. Thus, $y = 2x$ is an exponential function.

Extend (Verb): ᐅᖓᕙᕆᐊᖅᓯᓂᖅ/ᐅᐃᒍᐃᓂᖅ: ungavariaqsiniq/uiguiniq: prolonger

We extend a sequence by obtaining additional terms in accordance with the rule of the sequence. We extend the side of a polygon to obtain the exterior angle.

Exterior: ᓯᓚᑎᖓ: silatinga: externe, extérieur

An exterior angle is the angle produced by extending a side of a polygon. The exterior of a figure is the part of the plane (or of space) neither on nor within the figure.

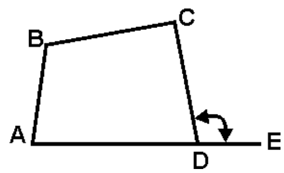

Figure 16: Exterior Angle of a Quadrilateral

F

Face: ᓵᖓ: saanga: face

One of the plane surfaces of a geometric solid. Thus, a cube has six congruent square faces (not sides).

Factor: ᐊᒥᓱᕈᖅᑕᐅᑎᖓ: amisuruqtautinga: facteur

A divisor of a number; a number which exactly divides another number. Thus, 10 is a factor of 50. A prime number which exactly divides another number is a prime factor of the number. Thus, 2, 3, and 5 are prime factors of 30.

Factorization: ᒥᑭᓂᖅᐹᒧᑦ ᐊᕕᑦᑐᐃᕙᓪᓕᐊᓂᖅ: mikiniqpaamut avittuivallianiq: facteurisation

In arithmetic or algebra, the representation of a quantity as a product of factors. Thus, 35 = 7 × 5, ab2 = a × b × b, and x2: y2 = (x + y)(x : y). In arithmetic it is common to seek a representation as a product of prime factors. Thus, 20 = 5 × 22, and 429 = 13 × 11 × 11.

Factor Tree: ᐊᕕᑦᑐᖅᑕᐅᓯᒪᓂᖏᑕ ᑎᑎᖅᑐᖅᑕᐅᓯᒪᓂᖏᑦ: avittuqtausimaningita titiqtuqtausimaningit: arbre des facteurs

A useful method of demonstrating factorization or prime factorization. Complete factorization may be accomplished in several steps. Thus, 36 = $3^2 \times 2^2$. While intermediate steps may differ, the "bottom line," except possibly for the order in which factors are written, is unique.

Five: ᑕᓪᓕᒪᑦ: tallimat: cinq

5; the fifth counting number.

Fold (Verb): ᐱᕆᑦᑎᓂᖅ: pirittiniq: plier

The folding of a piece of paper is an effective approach to the demonstration or verification of line symmetry.

Four: ᓯᑕᒪᑦ/ᑎᓴᒪᑦ: sitamat/tisamat: quatre

4; the fourth counting number.

Fraction: ᐊᕕᒃᑐᐃᓂᖅ: aviktuiniq: fraction

In general, a rational number, which is not an integer, written so as to show a breaking (fracture) into parts. Thus, 3/7 implies breaking into seven equal parts and consideration of three of these parts.

Function: ᓇᐃᓴᐅᓯᕆᓂᕆᔾᑦ ᐃᓚᒌᖕᓂᖅᑲᕐᓂᖕᒋᒃ: naisausirinirijat ilagiingniqarningik: fonction

A relation between elements of two sets such that for each element of the first set (the domain of the function) there is exactly one element of the second set (the range of the function). A function may typically be defined by a rule (the set of ordered pairs, (x,y), such that $y = x^2$) or a table (the set of children's names and the heights, to the nearest centimetre, associated with these names).

Function Machine: ᓇᐃᓴᐅᓯᕆᓂᕆᔾᑦ ᐃᓚᒌᖕᓂᖅᑲᕐᓂᖕᒋᑕ ᑕᑯᒃᓴᐅᑎᓯᒪᓂᖕᖓ: naisausirinirijat ilagiingniqarningita takuksautisimaninga: machine à fonctions

The visualization of a function as a machine having input (the domain elements), output (the corresponding range elements), and a processing capacity reflecting the rule of the function. Thus, for input 3, a domain element, a $2x + 1$ machine gives output 7.

G

Geoboard: ᐸᐅᑦᑐᖅᓯᒪᔪᑦ ᑕᓯᔪᐊᔫᓕᖅᓯᕐᕖᑦ: pauttuqsimajut tasijuajuuliqsurviit: géoplan

A popular manipulative (commercial or teacher made) having nails or pegs in a square or circular array, about which elastic bands can be stretched to investigate geometrical properties. The square array is, mathematically, a set of lattice points, and also can be considered on dot paper.

Geometry: ᑐᑭᒧᐊᖕᒐᔪᓕᕆᓂᖅ ᓴᓇᒪᔪᓕᕆᓂᕐᓗ: tukimuangajuliriniq sanamajulirinirlu: géométrie

The part of mathematics dealing with shape and form. Geometric figures introduced to young children include the triangle, square, rhombus or parallelogram, trapezoid, and hexagon (as pattern blocks), and rectangle and circle (as attribute materials). Further efforts extend to measurement concepts, straightedge and compass constructions, transformations, and coordinate geometry.

Gram: ᒍᕌᒻ: guraam (g): gramme

A unit of mass measure equivalent to one one-thousandth of the base unit, the kilogram. The symbol is g (not gm).

Graph: ᖃᐅᔨᓴᕈᑎ: qaujisaruti: graphique

A visualization of a mathematical situation. Statistically, a graph presents data. Pictographs, broken-line graphs, bar graphs, and circle graphs are introduced in elementary grades. Algebraically, a graph displays a relationship. Geometrically, a graph is a set of points and arcs.

Greatest Common Denominator: ᐊᖏᓛᖅ ᐊᕕᑦᑐᐃᔪᖅ ᓈᓴᐅᑎ ᐊᔾᔨᒌᙱᑦᑐᓂᒃ: angilaaq avittuijuq naasauti ajjigiinngittunik: plus grand commun dénominateur

The greatest common factor of two or more numbers which occur as denominators of fractions.

Greatest Common Factor: ᓈᓴᐅᑎ ᐊᒡᒍᐃᔾᔪᑕᐅᒍᓐᓇᖅᑐᖅ ᐊᖏᓂᖅᐹᖅ ᐊᔾᔨᒌᙱᑦᑐᓄᑦ: naasauti agguijjutaugunnaqtuq anginiqpaaq ajjigiinngittunut: plus grand commun diviseur

For two or more numbers, the greatest number which is a common factor of these numbers. Thus, for 20 = 2 x 2 x 5 and 30 = 2 x 3 x 5, common factors are 1, 2, 5, and 10, and the greatest common factor is 10.

Gross: ᐃᓚᙵᖅᑕᐅᓚᐅᖅᑎᓐᓇᒍ ᓈᓴᐅᑎ: ilanngaqtaulauqtinnagu naasauti: grosse

A traditional grouping equivalent to a dozen dozen.

H

Half: ᓇᑉᐸᖅ/ᐊᕝᕙᖅ: nappaq/avvaq: moitié

A fractional concept; one of two equal parts.

Hectare: ᓄᓇᐅᑉ ᐆᒃᑐᖅᓯᒪᓂᖓ: nunaup uuktuqsimaninga: hectare

A unit of land measure equivalent to 100 metres by 100 metres (10 000 square metres). The symbol is ha. One hundred hectares are equivalent to one square kilometre.

Height: ᐳᖅᑐᓂᖓ: puqtuninga: hauteur

The vertical height of a plane figure such as a triangle or of a solid figure such as a cone, cylinder, pyramid, or prism.

Heptagon: ᓯᑕᒪᐅᔪᙱᒋᒑᖅᑐᓂᒃ ᓯᓇᕐᔪᓕᒃ: sitamaujunngigaqtunik sinarjulik: heptagone

A polygon having seven sides and seven angles. A regular heptagon has seven equal sides and seven 128 4/7° angles.

Hexagon: ᐱᖓᓲᔪᖅᑐᓂᒃ ᓯᓇᕐᔪᓕᒃ: pingasuujuqtunik sinarjulik: hexagone

A polygon having six sides and six angles. A regular hexagon has six equal sides and six 120° angles. Children often first encounter the regular hexagon as the yellow pattern block. The walls of a honeycomb approximate regular hexagons.

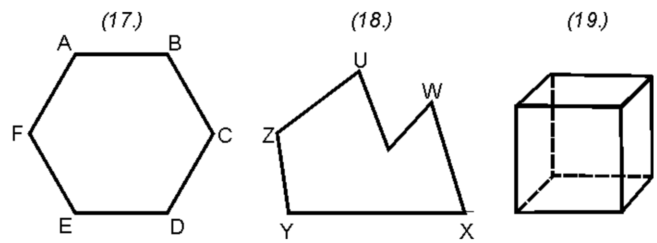

Figure 17: Regular Hexagon

Figure 18: Non Regular Hexagon

Figure 19: Regular Hexagon

Hexahedron: ᐱᖓᓲᔪᖅᑐᓂᒃ ᐊᔾᔨᒌᓂᒃ ᖄᓕᒃ: pingasuujuqtunik ajjigiinik qaalik: hexaèdre

A polyhedron having six faces. A regular hexahedron (having six congruent square faces) is a cube.

Hexiamond: ᐄᙳᐊᓕᒃ ᐱᖓᓲᔪᖅᑐᓂᒃ: inngualik pingasuujuqtunik: hexiamant

A geometric shape and manipulative, a hexiamond is a polyiamond made up of six equilateral triangles.

Hexomino: ᑭᑉᐹᕆᑦᑐᓕᒃ ᐱᖓᓲᔪᖅᑐᓂᒃ: kippaarittulik pingasuujuqtunik: hexomino

A popular geometric manipulative, a hexomino is a polyomino made up of six squares. There are 35 incongruent hexominoes.

Horizontal: ᓴᓂᒨᖓᔪᖅ: sanimuungajuq: horizontal

In the direction of the horizon; having zero slope.

Horizontal Axis: ᓴᓂᒨᖓᔪᖅ ᓈᓴᐅᑎᖃᕐᕕᒃ: sanimuungajuq naasautiqarvik: axe horizontal

In a rectangular coordinate system, the horizontal axis or "x-axis" plots the first coordinate, x-coordinate, or "abscissa" of the ordered pair.

Horizontal Line: ᓴᓂᒧᑦ ᑐᑭᓕᐊᖅᑐᖅ: sanimut tukiliaqtuq: ligne horizontale

A line that is horizontal: that is, in the direction of the horizon. Commonly, the base line of a figure.

Hour: ᐃᑲᕐᕋᖅ: ikarraq: heure

A measure of time equivalent to 3600 seconds. The base unit of time measure is the second.

Hundred: Hᐊᓐᓇᓚᓐ: hannalan: cent

In base ten numeration, ten tens; the third place value to the left of the decimal marker.

Hundreds Board: ᓈᓴᐅᑎᓕᖅᓯᕐᕕᒃ ᐅᐊHᐊᓐᓇᓚᒨᖓᔪᖅ: naasautiliqsurvik uahannalamuungajuq: planche à cent

A manipulative comprising a 10 x 10 array with numbers 1-100 identified with individual cells. The child observes patterns in multiplication facts and in other sequences.

Hundreds Place: ᑎᑦᑕᐅᑉ ᓴᐅᒥᖓᓃᑦᑐᖅ ᓈᓴᐅᑏᑦ ᐱᖓᔪᖓᑦ: tittaup sauminganiittuq naasautiit pingajungat: place des cents

In decimal notation, the place value denoting hundreds; third place to the left of the decimal marker.

Hundredths Place: ᑎᑦᑕᐅᑉ ᑕᓕᖅᐱᐊᓂ ᓈᓴᐅᑎ ᐊᐃᑉᐸᖓ: tittaup taliqpiani naasauti aippanga: place des centièmes

In decimal notation, the place value denoting hundredths; the second place to the right of the decimal marker.

Hypotenuse: ᑭᑉᐹᕆᑦᑑᔭᒥᒃ ᑎᕆᖅᑯᓕᐅᑉ ᐊᑭᐊᓃᑦᑐᖅ ᓯᓇᕐᔪᒃ: kippaarittuujamik tiriqquliup akianiittuq sinarjuk: hypoténuse

In a right triangle, the side opposite the right angle is called the hypotenuse of the triangle. The hypotenuse is therefore the longest side of the right triangle.

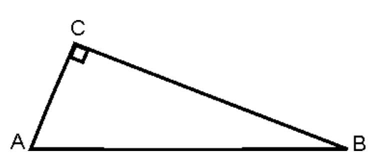

Figure 20: In Triangle ABC, C is the right angle. AB, the side opposite the right angle, is the hypotenuse of the triangle.

I

Icosagon: ᐊᕐᑎᓂᒃ ᓯᓚᖏᓕᒃ: avatinik sinarjulik: icosahogone

A polygon having twenty sides and twenty angles. A regular icosagon has twenty equal sides and twenty 162° angles.

Icosahedron: ᐊᕐᑎᓂᒃ ᐊᔨᔪᓂᒃ ᖁᒃᓗᓂᒃ: avatinik ajjigiinik qaalik: icosaèdre

A polyhedron having twenty faces. A regular icosahedron has faces which are congruent equilateral triangles.

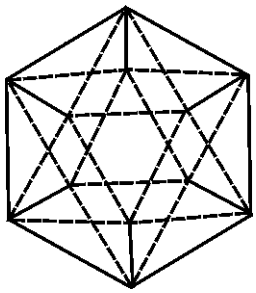

Figure 21: Regular Icosahedron

Identity: ᓇᓗᓇᐃᖅᓯᓂᖅ: nalunaiqsiniq: identité

A statement of equality (identical equation) holding for all values of a variable. Thus, $2(x + 4) = 2x + 8$, an identity, holds true for all values of x. Also, in a second meaning, 1 is called the identity element for multiplication and 0 the identity element for addition because their combination under the operation leaves the result unaltered.

Integer: ᓯᓚᓯᐅᑎ ᓴᖅᐅᑎᖏᑦᑐᑦ: silasiuti naasautingit: nombre entier

The integers are the set of the numbers comprising the natural or counting numbers (1, 2, 3 ...), zero (0), and the negatives of the natural numbers (-1, -2, -3 ...). Thus, 256, -7, 0, 84/4, $-\sqrt{121}$, and $(-3)^3$ are all examples of integers, although the variety of notations may not make this immediately evident.

Interior: ᐃᓗᐊ: ilua: intérieur

The inside of a closed figure.

Interior Of A Figure: ᐃᓗᐊ ᓴᓇᒪᓂᐅᕐᓂ: ilua sanamaniup: intérieur d'une figure

The region inside a closed curve.

Invert (Verb): ᑭᐳᑦᑎᑦᑎᓂᖅ: kiputtittiniq: renverser

To turn upside down. We invert a fraction when we obtain its multiplicative inverse. Thus, for 5/9 ÷ 2/3, we invert the divisor, 2/3, obtaining the equivalent example 5/9 × 3/2 = 5/6.

Investigate (Verb): ᖃᐅᔨᓴᕐᓂᖅ: qaujisarniq: examiner en détail

Children are encouraged to investigate patterns in number and in shape and form and to investigate outcomes in experimental probability.

Irrational Number: ᓈᓴᐅᑏᑦ ᐊᕕᑦᑐᕈᓐᓇᖏᑦᑐᑦ: naasautiit avitturunnangittut: nombre irrationnel

A number which cannot be written as an integer or fraction: that is, as a ratio of integers. Thus, √2, 3 − √5, and pi are irrational numbers. The decimal expression for an irrational number is non-terminating and non-repeating.

Is Equal To: ᑕᐃᒪᐃᓪᓗᐊᖓ: taimailluanga: égale

See Equals, Equal Sign (=).

Is Not Equal To: ᑕᐃᒪᐃᓪᓗᐊᕆᙱᑕᖓ: taimailluarinngitanga: différent de

The symbol ≠ which indicates nondirectional inequality of quantities. In mathematics in general, a slash through a symbol serves to negate the symbol.

Isosceles Triangle: ᓯᓇᕐᔪᓕᒃ ᒪᕐᕈᓐᓂᒃ ᓇᓕᒧᑦᑑᓐᓂᒃ ᖁᐊᒡᔪᐊᖅᑐᖅ (ᐄᙳᐊᖅ): sinarjulik marruunnik nalimuttuunnik quagjuaqtuq (iinnguaq): triangle isocèle

A triangle having two equal sides. The angles opposite these sides also are equal.

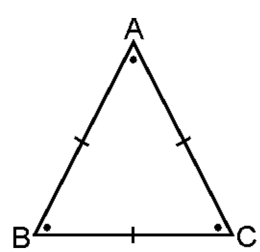

Figure 22: Isosceles Triangle

K

Kilogram: ᑭᓗᒍᕌᒻ: kiluguraam: kilogramme

The base unit of mass (informally, "weight"), equivalent to 1000 grams. For teaching purposes, one litre of pure water has a mass closely approximating one kilogram.

Kilolitre: ᑭᓗᓖᑕ: kiluliita: kilolitre

A unit of volume (capacity) measure equivalent to 1000 litres or to 1 cubic metre.

Kilometre: ᑭᓗᒦᑕ: kilumiita: kilomètre

A unit of distance or length equivalent to 1000 metres. The symbol is km. Preferred Canadian-English pronunciation puts the accent on the first syllable, KIL-o-metre.

Kite: ᑎᑦᑕᐅᔭᖅ: tittaujaq: cerf-volant

A quadrilateral having a single axis of symmetry, two pairs of equal sides, and two pairs of equal angles (one pair acute and the other obtuse).

L

Lateral Surface: ᓴᓂᕋᖕᒋᑦ: sanirangit: surface latérale

The surfaces other than the base of a figure such as a pyramid or cone.

Learning Aids: ᐃᓕᑦᑎᔾᔪᑏᑦ: ilittijjutiit: aides-apprendre

In mathematics, any of a range of demonstration or manipulative devices designed to show or reinforce mathematical processes, numbers, or related facts.

Least Common Denominator: ᐃᓚᒍᑕᓕᓐᓂ ᓈᓴᐅᑎ ᒥᑭᓂᖅᐹᖅ ᐊᓪᓕᖅ ᑕᒪᐃᓐᓃᑦᑐᖅ: ilagutalinni naasauti mikiniqpaaq alliq tamainniittuq: plus petit commun dénominateur

In addition or subtraction of unlike common fractions, conversion is made to equivalent fractions which share a common denominator. For simplicity, there is advantage in converting to the least of possible common denominators. This is found as the least common multiple of the individual denominators.

Least Common Multiple: ᒥᑭᓂᖅᐹᖅ ᓈᓴᐅᑎ ᐊᔾᔨᒌᙱᑦᑐᓄᑦ ᐊᒡᒍᖅᑕᐅᒍᓐᓇᕐᓂᖓ: mikiniqpaaq naasauti ajjigiinngittunut agguqtaugunnarninga: plus petit commun multiple

Least of the common multiples of two or more numbers. Thus, multiples of 2 are 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24 ...; multiples of 3 are 3, 6, 9, 12, 15, 18, 21, 24 ...; common multiples of 2 and 3 are 6, 12, 18, 24 ...; the least of these common multiples is 6.

Length: ᑕᑭᓂᖓ: takininga: longueur

A linear dimension. We refer to the length of a line segment; the length and width of a plane figure such as a rectangle; or the length, width, and height of a solid figure.

Less Than: ᖃᑦᑏᓐᓇᐅᓂᖅᓴᖅ: qattiinnauniqsaq: plus petit que

A relation used to compare numbers, lengths, etc. Thus $6 < 8$ (6 is less than 8). The "less than" relation has the property of transitivity: that is, if $a < b$ and $b < c$, then $a < c$.

Like Fractions: ᐃᓚᒍᑕᓂᑦ ᐊᓪᓕᖕᒋᒃ ᐊᔾᔨᒌᒃ: ilagutanit allingik ajjigiik: fractions semblables

Fractions having the same denominator. Conversion to like fractions is usual in addition or subtraction of fractions.

Line: ᑐᑭᓕᐊᖅᑐᖅ ᐃᓱᖃᙱᑦᑐᖅ: tukiliaqtuq isuqanngittuq: ligne

The geometric figure modelled by and drawn with a straightedge; a line extends without limit. Formally, an undefined term. *See Line Segment.*

Line Segment: ᑐᑭᓕᐊᖅᑐᖅ ᐃᓱᓕᒃ: tukiliaqtuq isulik: segment d'une ligne

The portion of a line determined by two endpoints. The length of a line segment is the measure of the distance between these endpoints.

Linear: ᑐᑭᓕᐊᖅᑐᓕᕆᔪᖅ: tukiliaqtulirijuq: linéaire

Having to do with a line. A mathematical expression such as $x = 5$, $y = 3$, or $2x + 7y = 11$ is said to be linear (a linear equation) because its rectangular coordinate (graph) is a (straight) line. Correspondingly, a relation such as $5x + 3y > 10$ is said to be a linear inequality because the boundary of its graph is a (straight) line.

Litre: ᖃᓪᓗᑎ: qalluti: litre

A unit of volume or capacity equivalent to a cube with a 10 cm edge (1000 cm^3). The preferred symbol in Canadian usage is L.

M

Manipulatives: ᓈᓴᐅᓯᕆᔾᔪᑏᑦ ᑎᒍᓚᒐᐃᑦ: naasausirijjutiit tigulagait: articles manipulatives

Devices to be handled by children to provide insights into mathematical principles. Thus, base ten blocks (place value, meaning of operations), pattern blocks (shapes, patterns, relations), geoboards, colour-coded rods (fractional concepts, number facts, relations).

Many To One Correspondence: ᐊᒥᓱᓂᒃ ᐊᑕᐅᓯᕐᒧᑦ ᐃᓕᓯᓂᖅ: amisunik atausirmut ilisiniq: corrélation entre le groupe et l’unité

Such a matching as the counting numbers to the sums of their digits, where more than one of the first element can be matched to one of the second. Thus, 78, 96, and 654 all have a digit sum of 15.

Mass: ᐃᓗᓕᖓ: ilulinga: masse

A measure of an amount of matter. The base unit of mass measure is the kilogram. Mass often is determined by weighing, but mass and weight are distinct concepts.

Match (Verb): ᐊᔾᔨᒌᓂᒃ ᑲᑎᑎᑦᑎᓂᖅ: ajjigiinik katitittiniq: établir une corrélation

To establish a correspondence, as between real numbers and points on a number line.

Mathematics: ᓈᓴᐅᓯᕆᓂᓗᒃᑖᖅ: naasausiriniluktaaq: mathématiques

Broadly, the systematic study of numbers, shapes and forms, relations and patterns. School mathematics includes numbers and numeration, mathematical operations, geometric concepts, algebra, statistics, and a range of problem-solving activities.

Mean: ᓈᓴᐅᑏᑦ ᑲᑎᓚᐅᖅᑎᓪᓗᒋᑦ ᖃᑦᓯᐊᖅᑎᕐᓗᒍ ᐊᕕᑦᑐᕈᓐᓇᕐᓂᖓ: naasautiit katilauqtillugit qatsiaqtirlugu avitturunnarninga: moyenne

In statistics, a common measure of central tendency. The mean is the most commonly used average, obtained by summing a set of scores and dividing by the number of scores. Other simple averages are "median" and "mode."

Measure: ᐆᑦᑐᕋᕐᓂᖅ: uutturarniq: mesure

A numerical comparison of a length, area, etc., with the standard unit of that measurement.

Median: ᐊᖏᑎᓕᕆᓕᐊᓯᒪᔨᓂ ᐊᑯᓕᓂᖅᓴᖅ ᓇᓴᐅᑎ: angillivalliasimajuni akulliqpaaq naasautini: tendance centrale

In statistics, a measure of central tendency (average). In a set containing an odd number of scores, when scores are listed from least to greatest, the median is the middle score. In a set containing an even number of scores, the median is the mean of the two middle scores. In geometry, a median is the line segment joining a vertex to the midpoint of the opposite side.

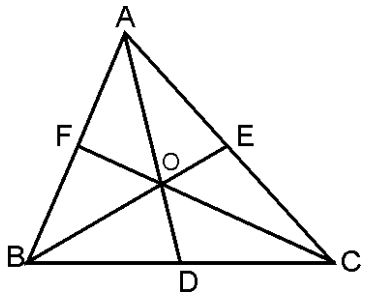

Figure 23: Medians of a Triangle, Concurrent at Centroid O

Metre: ᑦᑕ (ᐅᖅᑐᑎ ᐊᑕᐅᓯᖅ): miita (uuttuuti atausiq): mètre

The base unit of measure of length. The metre is commonly subdivided to hundredths (centimetres) or thousandths (millimetres), or considered in multiples of one thousand (kilometres). The symbol is m (lower case), and the preferred Canadian-English spelling is metre (French *mètre*).

Millilitre: ᒥᓕᓂᑕ: mililiita: millilitre

A unit of volume or capacity equivalent to one one-thousandth of a litre. The symbol is mL. Millilitre and cubic centimetre are used interchangeably.

Millimetre: ᒥᓕᑦᑕ (m.): milimiita (m.): millimètre

A measure of length equivalent to one one-thousandth of a metre. The symbol is mm.

Million: ᒥᓕᐊᓐ: milian: million

A quantity equivalent to one thousand thousand (10^6).

Minuend: ᐃᓚᖓᑕᕐᓴᖅ: ilanngagatsaq: diminuende

In subtraction, the number from which a quantity is being subtracted. Thus, in 26 – 17 = 9, 26 is the minuend, with 17 the subtrahend and 9 the difference.

Mixed Numeral: ᓈᓴᐅ ᑎᐃᓚᒍᑕᓕᒃ: naasauti ilagutalik: nombre fractionnaire

A number so written as to be part integer and part common fraction, such as 3 3/4. Such a mixed numeral can be restated as an improper fraction: 15/4.

Mode: ᐊᔾᔨᒌᑦ ᓈᓴᐅᑏᑦ ᓴᖅᑭᕋᔪᕐᓂᖅᐹᑦ: ajjigiit naasautiit saqqirajunniqpaat: mode

In statistics, a measure of central tendency. In a set of scores, the mode is the most frequently occurring score.

Money: ᑮᓇᐅᔭᖅ: kiinaujaq: argent

Broadly, a medium of exchange. Canada's decimal money may be used to reinforce concepts of place value and decimal notation.

More Than: ᐊᒥᓲᓂᖅᓴᖅ: amisuuniqsaq: plus grand que

A relation used to compare numbers, lengths, etc. Thus, 9 > 7 (9 is greater than 7). The "more than" relation has the property of transitivity: that is, if a > b and b > c, then a > c.

Multiple: ᓈᓴᐅᑎ ᖃᑦᑎᕌᖅᑕᕈᓐᓇᕐᓂᖓ ᓈᓴᐅᒻᒧᑦ: naasauti qattiraaqtarunnarninga naasaummut: multiple

A multiple of a number is the result obtained by multiplying that number by a counting number. Thus, the multiples of 7 are 1 × 7, or 7; 2 × 7, or 14; 3 × 7, or 21 .... Similarly, multiples of 13 are 13, 26, 39, 52, 65 ...

N

Negative Number: ᐊᑭᓕᑦᓴᑦ ᓈᓴᐅᑏᑦ: akilitsat naasautiit: nombre négatif

A number less than zero and to the left of the origin on the horizontal number line. A negative number is a real number and may be rational or irrational, an integer or not an integer.

Net: ᓴᓂᕋᖃᐅᓕᖅᑎᒐᒃᓴᖅ: saniraqauliqtigaksaq: filet

A plane pattern which may be folded to yield a polyhedral shape.

Network: ᒪᑦᑎᑦᑕᐅᑎᙳᐊᖅ/ᓄᓗᐊᙳᐊᖅ: mattittautinnguaq/nuluannguaq: réseau

A connected geometric figure comprising arcs and vertices.

Nine: ᓯᑕᒪᐅᔪᖅᑐᑦ ᐊᑕᐅᓯᕐᓗ/ᖁᓕᐅᙱᒐᖅᑐᑦ/ᖁᓕᐅᙱᓗᐊᖅᑐᖅ: sitaumaujuqtut atausirlu/quliunngigaqtut/quliunngiluaqtuq: neuf

9; the ninth counting number.

Non-Repeating Non-Terminating Decimal Expression: ᑎᕋᐅᕝ ᑕᓕᖅᐱᐊᓂᖅᑐᑦ ᐅᑎᖅᑕᖃᕐᑐᕋᑦ ᐃᓱᖅᖃᕐᑐᕋᑦ: tittaup taliqpianiittut utiqtanngittut isuqanngittut: fraction non périodique non délimitée

A decimal expression which neither repeats nor terminates; represents an irrational number. A well-known example is π, the ratio of circle circumference to diameter (3.1415926535 ...).

Non-Routine Problem: ᐅᓂᒃᑲᓕᐊᔪᓱᒪᓕᕆᖅ ᐃᓕᓴᓂᐊᑭᑦ ᐃᓕᓴᓂᐊᑭᑕᐅᓱᒪᖃᕐᑐᕋᖅ ᑭᐅᑎᐊᓕᓗᖅ: unikkaaliangusimajuq ilinniarut ilinniarutausimanngittuq kiugialik: problème peu commun

A problem which does not lend itself to a routine solution and which may call for originality of approach.

Non-Simple Curve: ᐊᑐᐊᑕᖅ ᖃᒃᓕᖃᒃᑕᐅᑎᕆᖅ: atuagaq qalliqattautijuq: courbe non simple

Essentially, a curve that crosses itself, where a point other than the beginning or end point is passed more than once in tracing the curve.

Nonagon: ᖃᐅᓕᐅᖃᕐᑕᒪᓕᖅᑐᓂᒃ ᓯᓚᖃᕆᓕᒃ: quliunngigaqtunik sinarjulik: nonagone

A polygon having nine sides and nine angles. In a regular nonagon each angle measures 140˚.

Number Line: ᐅᓴᐅᑎᖃᖃᐃᒃ: naasautiqarvik: ligne à nombres

A line which has been coordinated to place points on the line in one-to-one correspondence with real numbers. A number line is established by identifying a zero-point (the origin), a positive sense or direction, and a scale (or unit distance).

Number: ᖃᓕᓯᐅᓂᖅᑐᑦ: qatsiuningit: nombre

Numbers in school mathematics include the whole numbers (zero and the counting numbers), common and decimal fractions, negative numbers, and rational and irrational numbers. Solving the quadratic equation in high school requires extension to imaginary and complex numbers. The study of number properties may include consideration of even and odd numbers, prime and composite numbers, multiples, and other such classifications.

Numeral: ᐅᓴᐅᑦᑎᑦ ᑎᑎᕎᖅᓯᒪᓂᖅᑐᑦ: naasautiit titiraqsimaningit: numéral

A symbol for a number. Thus, 3 and 37 are numerals in the Hindu-Arabic tradition, and XVII and MCMXCIX are Roman numerals.

Numerator: ᖁᔪᓕᖅ ᓇᓴᐅᑎ ᐃᓕᔪᑕᓐᓂᓂ: qulliq naasauti ilagutalinni: numérateur

The terms of a fraction are the numerator (above) and denominator (below). The line acts as a bracket and indicates division. The numerator names the number of parts. Thus, 5/7 has numerator 5, denominator 7. The 5 indicates that there are five parts, each part being one seventh.

O

Obtuse Angle: ᐃᖅᓯᖏᓚᖅ ᑎᓪᖅᑯᖅ: iqpangajuq tiriqquq: angle obtus

An angle whose measure is between that of a right angle and that of a straight angle: that is, an angle between 90˚ and 180˚.

Obtuse Triangle: ᐃᖅᓯᖏᓚᒥᒃ ᑎᓪᖅᑯᓕᒃ ᖁᐊᓴᓚᐊᖅᑐᖅ: iqpangajumik tiriqqulik quagjuaqtuq: triangle obtusangle

A triangle, one of whose angles is an obtuse angle.

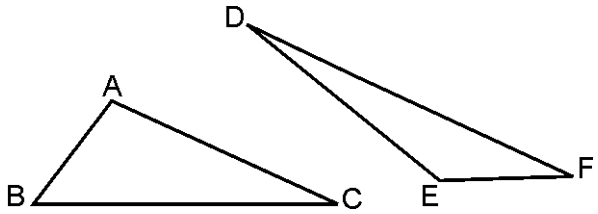

Figure 24: Obtuse Triangles

Octagon: ᓂᑕᒪᐅᔪᖅᑐᑎᓂᒃ ᓂᓇᖁᓕᒃ: sitamaujuqtunik sinarjulik: octagone

A polygon having eight sides and eight angles. A regular octagon has eight equal sides and eight 135˚ angles. For young children, the stop sign, universally a red octagon, often provides the first acquaintance with this figure.

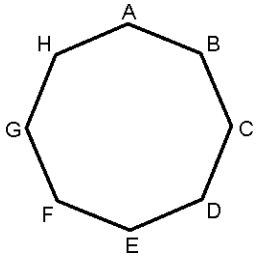

Figure 25: Regular Octagon

Octahedron: ᑎᓴᒪᐅᔪᖅᑐᓂᒃ ᐊᔾᔨᒌᓂᒃᖄᓕᒃ: tisamaujuqtunik ajjigiinik qaalik: octaèdre

A polygon having eight faces. A regular octahedron has eight congruent triangular faces and congruent angles. The regular octahedron is well known as a crystal form.

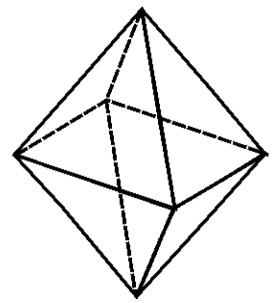

Figure 26: Regular Octahedron

Odd Number: ᐊᓪᓗᐃᑦᑕᖅᑐᖅ ᓈᓴᐃᓂᖅ 1-ᒥᑦ ᐱᒋᐊᕐᓗᒍ: alluittaqtuq naasainiq 1-mit pigiarlugu: nombre impair

Where numbers are considered even or odd, even numbers are multiples of 2, odd numbers are the remaining numbers, those one more (or one less) than a multiple of 2. Thus, 3, 37, and 125 are odd numbers.

One: ᐊᑕᐅᓯᖅ: atausiq: un

1; the first counting number. The identity element for multiplication.

One Fourth: ᑯᐊᑕ/ᓇᑉᐸᖓᑕ ᓇᑉᐸᖓ/ᐊᕝᕙᖓᑕ ᐊᕝᕚ: kuata/nappangata nappanga/avvangata avvaa: quatrième

The number concept representing consideration of one of four equal parts.

Ones Place: ᑎᑦᑕᐅᑉ ᓴᐅᒥᑦᑎᐊᖓᓃᑦᑐᖅ: tittaup saumittianganiittuq: place des unités

In place-value numeration, the place value to the left of the marker. Thus, in base ten numeration, the ones digit (or "unit digit") in 327.4 is 7.

One-To-Many Correspondence: ᐊᑕᐅᓯᕐᒥᒃ ᐊᒥᓱᓄᑦ ᐃᓕᓯᓂᖅ: atausirmik amisunut ilisiniq: corrélation entre l'unité et d'autres éléments

A matching in which an element of a first set can be paired with more than one element of a second set. Thus, if m is the number of prime factors of a positive integer, n, then the matching of m to n is one-to-many.

One-To-One Correspondence: ᐊᑕᐅᓯᐅᑦᑕᖅᑐᓂᒃ ᐊᐃᑉᐱᖅᑐᐃᓂᖅ: atausiuttaqtunik aippiqtuiniq: corrélation entre unités

A matching in which each element of a first set is paired with exactly one element of a second set. Thus, the set of counting numbers (1, 2, 3 ...) can be placed in one-to-one correspondence with the set of positive even integers (2, 4, 6 ...).

Open Curve: ᐊᑐᐊᒐᖅ ᐱᒋᐊᙲᒐᕐᓂᖕᒐᓄᑦ ᑲᓱᖅᓯᒪᙲᒋᑦᑐᖅ: atuagaq pigianngarninganut kasuqsimanngittuq: courbe ouverte

A curve for which the beginning and end points do not coincide.

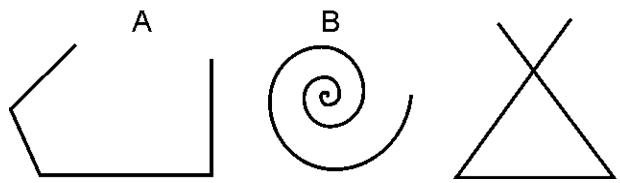

Figure 27: Simple (A, B) and Non-Simple Open Curve

Operation: ᐊᐅᓚᓂᖅ: aulaniq: opération

A procedure performed on elements of a mathematical set. Basic operations on the sets of numbers of school mathematics are addition, subtraction, multiplication, and division. These are binary operations, performed on two numbers at a time. Other number operations include exponentiation (raising to a power) and taking the negative or reciprocal of a number.

Order Of Operations: ᐊᒥᓱᕈᖅᑕᐃᓂᕐᒥᒃ ᐱᖅᑳᕆᐊᓕᒃ ᐅᕐᑰᑕᙲᒍᐊᕐᑲᙲᒋᑐᐊᖅᐸᑦ: amisuruqtainirmik piqqaarialik uquutannguaqanngituaqpat: ordre des opérations

The principle in mathematics that multiplication (with its inverse, division) takes precedence over addition (with its inverse, subtraction) in mathematical computation. Thus, $5 + 2 \times 4 = 13$, the multiplication having priority over the addition. Further, exponentiation (taking to an exponent or power) takes precedence over multiplication. Thus, $2 \times 5^2 = 50$. Brackets (commonly "parentheses") are used to assert that the bracketed quantity is to be treated as a single number.

Ordinate: ᑐᑭᒧᐊᖕᒐᔪᖅ ᓈᓴᐅᑎᕐᑲᕐᕕᒃ: tukimuangajuq naasautiqarvik: ordonnée

The term for the second coordinate (or "y-coordinate") in an ordered pair. The ordinate gives the directed distance, measure vertically, of a point from the horizontal (*XOX'*) axis.

P

Pair: ᐃᓪᓗᒌᒃ: illugiik: paire

A set of two. Positions on the coordinate plane are designated by an ordered pair of real numbers.

Parallel: ᓴᓂᓕᕇᒃ ᑲᑎᒍᓐᓇᖖᒋᑦᑑᒃ: saniliriik katigunnanngittuuk: parallèle

Lines, line segments, or rays which, when produced in a plane, do not meet, are said to be parallel. Correspondingly, planes or part planes which, when produced in space, do not meet, are said to be parallel.

Parallelogram: ᑭᑉᐹᕆᑦᑑᔭᖅ ᐃᖁᖓᔪᖅ: kippaarittuujaq iqungajuq: parallélogramme

A quadrilateral whose opposite sides are parallel. A parallelogram with a right angle is a rectangle. A parallelogram with equal sides is a rhombus. A parallelogram with both sides equal and a right angle is a square.

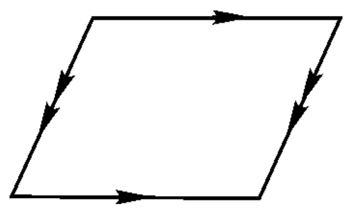

Figure 28: Parallelogram

Pentagon: ᑕᓪᓕᒪᓂᒃ ᓯᓇᕐᔪᓕᒃ: tallimanik sinarjulik: pentagone

A polygon with five sides and five angles. A regular pentagon has five equal sides and five 108° angles. *See Polygon.*

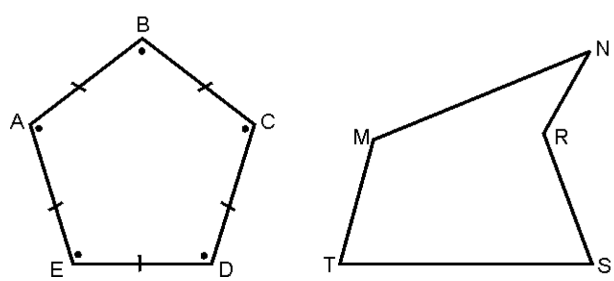

Figure 29: Regular and Nonregular Pentagons

Pentiamond: ᐄᖖᒍᐊᓕᒃ ᑕᓪᓕᒪᓂᒃ: inngualik tallimanik: pentiamant

A figure or manipulative made up of five congruent equilateral triangles; a five-triangle polyiamond.

Pentomino: ᑭᑉᐹᕆᑦᑐᓕᒃ ᑕᓪᓕᒪᓂᒃ: kippaarittulik tallimanik: pentomino

A figure or manipulative made up of five congruent squares; a five-square polyomino.

Percentage: ᐳᓴᓐᑎᖓ: pusantinga: pourcentage

A measure of the number of parts per hundred. Thus, 1/4 is equivalent to 25 per hundred, or 25 per cent (25%).

Perfect Number: ᓈᓴᐅᑎᒥᒃ ᐊᕕᑦᑐᐃᒍᓐᓇᖅᑐᓕᒫᑦ ᑲᑎᓚᐅᕐᓗᒋᑦ ᑕᐃᒪᐃᓪᓗᐊᕇᑦ: naasautimik avittuigunnaqtulimaat katilaurlugit taimailluariit: nombre parfait

When numbers are classified as perfect, deficient, or abundant, a perfect number is a number the sum of whose proper divisors is equal to the number. That is, we sum divisors which are less than the number itself (proper divisors) and obtain a result equal to the number. Thus, proper divisors of 28 are 14, 7, 4, 2, and 1; 14 + 7 + 4 + 2 + 1 = 28; so 28 is a perfect number.

Perimeter: ᓯᓇᕐᔪᖏᑕ ᑕᑭᓂᖏᓐᓂᒃ ᐆᑦᑐᕋᕐᓂᖅ: sinarjungita takininginnik uutturarniq: périmètre

The measure of the distance around a figure. The perimeter of a polygon is the sum of the sides. The perimeter of a circle is called the circumference.

Perpendicular: ᓴᓐᓂᖓᔪᓕᒃ: sanningajulik: perpendiculaire

Lines (or planes) which meet at right angles are said to be perpendicular.

Place Value: ᓈᓴᐅᑎᐅᑉ ᐃᓂᖏᑦ: naasautiup iningit: valeur de place

The value associated with a digit by virtue of its position in a numeral. Thus, in 365, 6 is in the tens place and its place value is 6 × 10, or 60.

Plane: ᒪᓂᕋᖅ: maniraq: plan

A flat surface. "Plane" is normally presented as an undefined mathematical term.

Point: ᑕᖅᓴᖅ: taqsaq: point

Conventionally represented by a dot on paper, a point has position but not size. Formally, an undefined concept. Geometric figures are regarded as sets of points.

Polygon: ᓯᓇᕐᔪᒐᓴᓕᖏᑦ: sinarjugasaliit: polygone

A mathematical figure having three or more sides. Polygons are named by their number of sides. Thus,
3 sides = triangle;
4 sides = quadrilateral;
5 sides = pentagon;
6 sides = hexagon;
7 sides = heptagon;
8 sides = octagon;
9 sides = nonagon;
10 sides = decagon;
11 sides = undecagon;
12 sides = dodecagon;
15 sides = quindecagon; and
20 sides = icosagon.
The current Canadian dollar coin ("loonie") is undecagonal in shape. The British 50 pence is distinctly heptagonal.

Polyhedron: ᐊᒥᓱᓂᒃ ᐊᔾᔨᒌᓂᒃ ᖄᓖᑦ: amisunik ajjigiinik qaaliit: polyèdre

A solid figure bounded by polygonal faces. Five regular polygons have congruent regular polygons as faces and faces which meet at congruent angles. These are: regular tetrahedron (four triangles), regular hexahedron or cube (six squares), regular octahedron (eight triangles), regular dodecahedron (twelve pentagons), and regular icosahedron (twenty triangles).

Polyhex: ᐱᖓᓲᔪᖅᑐᓂᒃ ᓯᓇᕐᔪᖃᐅᖅᑐᑦ ᑲᑎᒪᔪᑦ: pingasuujuqtunik sinarjuqauqtut katimajut: polyhex

A figure or manipulative compounded of congruent regular hexagons sharing one or more common sides. The hexagonal analogue of the polyomino (compounded of squares) and the polyiamond (compounded of equilateral triangles).

Polyiamond: ᐄᖖᒍᐊᑦ ᑲᑎᒻᒪᐅᖅᑐᑦ: iinnguat katimmauqtut: polyiamant

A figure or manipulative compounded of congruent equilateral triangles sharing one or more common sides. The triangular analogue of the polyomino (similarly compounded of squares) and the polyhex (compounded of regular hexagons).

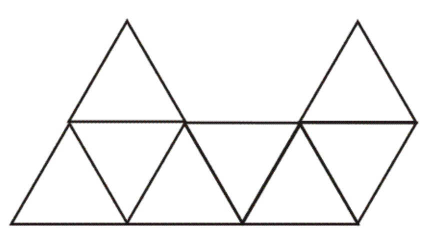

Figure 30: Polyiamond

Polyomino: ᑭᑉᐸᓯᕌᖅᑐᖅ-ᓯᒃᑭᑦᑕᓪᓛᔪᖅ: kippasiraaqtuq-sikkittallaajuq: polyomino

A figure or manipulative compounded of congruent squares, having one or more common sides. Polyominoes are named by their number of squares, as tetromino (four squares), pentomino (five squares), hexomino (six squares). There are 5 tetrominoes, 12 pentominoes, and 35 hexominoes which are distinct in that they cannot be obtained from one another by translation, rotation or reflection.

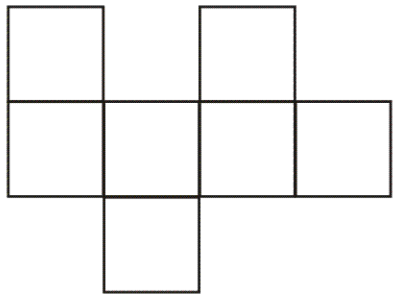

Figure 31: Polyomino

Positive Number: ᐊᑭᓕᑦᓴᐅᙱᑦᑐᑦ ᓈᓴᐅᑏᑦ: akilitsaunngittut naasautiit: nombre positif

Real numbers are positive, zero, or negative. A positive number is one that is greater than zero.

Predict (Verb): ᓇᓚᐅᑦᑕᐃᓂᖅ: nalauttainiq: prédire

Children frequently predict the outcome of a mathematical or statistical investigation.

Prime Number: ᐊᕕᒍᓐᓇᖅᑐᖅ ᑭᓯᐊᓂ ᐃᒻᒥᓄᓪᓗ ᐅᐊᒧᓪᓗ: imminullu uamullu kisiani avigunnaqtuq: nombre premier

Counting numbers may be assigned to three categories according to their number of divisors. Numbers which have exactly two divisors are called prime numbers. Numbers which have more than two divisors are called composite numbers. Thus 17 = 17 × 1 has two divisors, 17 and 1, and is a prime number, while 18 = 18 × 1 = 9 × 2 = 6 × 3 has six divisors (18, 9, 6, 3, 2, and 1), and is a composite number. The number 1 has only one divisor, 1 (itself), and is in a class by itself. It is called the unit of the counting number system. The first prime numbers, in order, are 2, 3, 5, 7, 11, 13, 17, 19, 23 ....

Prism: ᓴᓂᕋᖏᑦ ᑭᑉᐹᕆᑦᑐᑯᑖᑦ ᖃᑦᓯᑐᐃᓐᓇᐅᒍᓐᓇᖅᓱᑎᒃ ᓯᓇᕐᔪᖏᑦ: sanirangit kippaarittukutaat qatsituinnaugunnaqsutik sinarjungit: prisme

A mathematical solid having parallel polygonal bases with parallelograms (commonly rectangles) as lateral surfaces. The volume of a prism is the product of the area of the base times the vertical height.

Probability: ᐱᑐᐃᓐᓇᓕᕆᓂᖅ (50-50): pituinnarialik (50-50): probabilité

A number between 0 and 1, inclusive, denoting the fraction of the time that a particular outcome will occur.

Product: ᐊᒥᓱᑭᖅᑕᐃᓗᓂᓂ ᖃᖏᓱᐅᓂᖅᓴᖅ: amisuruqtailuni qassiuninga: produit

A product is the result of multiplication. Thus, the product of 7 and 6 is 7 x 6, or 42. Note that "product" indicates multiplication while "and" merely is a joining word.

Proof: ᖃᖅᐅᓵᑎᕐᑎᓂᖅ: qaujitittiniq: preuve

A formal demonstration of the proof of a statement.

Protractor: ᑎᓕᖅᔪᓂᖅ ᐅᖅᑐᕋᐅᑦ/ᐅᑦᑐᑎ: tiriqqunik uukturaut/uuttuuti: rapporteur

A geometric instrument for measuring the number of degrees in an angle or for constructing an angle of a given measure.

Pyramid: ᓴᓂᕋᖏᑦ ᐃᖏᔪᐊᖓᓪᓗᑎᒃ ᑭᐸᓚᕐᑐᒥᒃ ᑐᖏᓪᓚᕋᖅᖅᑐᓂ: sanirangit iinnguangullutik kippaarittumik tunngaviqaqsuni: pyramide

A mathematical solid having a polygonal base with triangular lateral surfaces rising to a common vertex. The volume of a pyramid is one-third the product of the area of the base times the vertical height.

Q

Quadrant: ᑎᓴᒪᐅᓕᖅᑲᖏᓐᓄᑦ: tisamauliqqangajut: quadrant

The axes of a rectangular coordinate system divide the number plan into four regions, called quadrants. Conventionally, the quadrants are numbered I, II, III, IV, counterclockwise, beginning with the upper right.

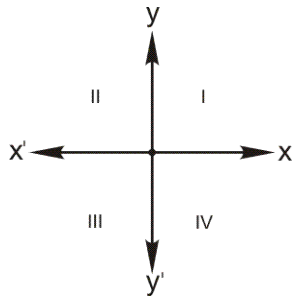

Figure 32: Four Quadrants

Quadrilateral: ᓯᑕᒪᓂᒃ ᓯᓇᕐᔪᓕᒃ: sitaminik sinarjulik: quadrilatère

A polygon having four sides and four angles. A number of quadrilaterals having special properties are named in school geometry, including the following:
square, having four equal sides and four right angles
rhombus, having four equal sides
rectangle, having four right angles and opposite sides that are equal and parallel
parallelogram, having opposite sides that are equal and parallel
trapezoid, having one pair of parallel sides

Quindecagon: ᖁᓕᓂᒃ ᑕᓪᓕᒪᓂᓪᓗ ᓯᓇᕐᔪᓕᒃ: qulinik tallimanillu sinarjulik: quindécagone

A polygon having 15 sides and 15 angles. In a regular quindecagon each angle measures 156°.

Quotient: ᐊᒡᒍᖅᑕᐅᓚᐅᖅᑎᓪᓗᒋᑦ ᓈᓴᐅᑎ: agguqtaulauqtillugit naasauti: quotient

In division, the dividend is divided by the divisor, and the result is called the quotient. There may or may not be a remainder.

R

Radius: ᐊᒻᒪᓗᑭᑖᑉ ᕿᑎᖓᓂ ᑐᑭᒧᐊᑦᑐᖅ: ammalukitaap qitingani tukimuattuq: rayon

In a circle, a segment joining the centre to a point on the circumference. In a sphere, a segment joining the centre to a point on the surface. Commonly the measure of the length of this segment. The radius is one-half the diameter.

Range: ᐱᓕᕆᐊᖑᔪᑦ ᐃᓗᐊᓃᑦᑐᑦ: piliriangujut iluaniittut: alignement

In the study of relations or functions, the set of values taken on by the relation: that is, the set of "output values," the set of second members of the ordered pairs.

Ratio: ᖃᓄᖅ ᐊᔾᔨᒌᙱᑎᒋᒻᒪᖔᑕ ᖃᐅᔨᓴᕐᓂᖅ: qanuq ajjigiinngitigimmangaata qaujisarniq: raison

Quantities may be compared by division or by subtraction. A comparison by division is called a ratio.

Rational Number: ᓈᓴᐅᑏᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᑦ: naasautiit avittuqsimajut: nombre rationnel

A number that can be written as a ratio or quotient of integers. Thus, common fractions, proper and improper, are rational numbers, as are integers (8 = 8/1) and mixed numbers (2 1/3 = 7/3). *See Irrational Number.*

Ray: ᑐᑭᓕᐊᖅ ᑐᖅᐱᒋᐊᙵᕐᓂᓕᒃ ᐃᓱᖅᑲᙱᑦᑐᒧᑦ: tukiliaqtuq pigianngarnilik isuqanngittumut: rayon

The art of a line comprising a point and all other points to one side of it.

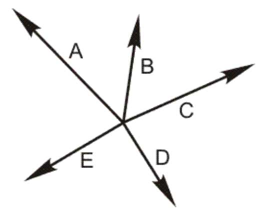

Figure 33: Rays

Real Number: ᓈᓴᐅᑎᓕᒫᑦ: naasautilimaat: nombre réel

Real numbers represent the number system of most high school mathematics. Elementary school tends to restrict itself to the rational subset, which includes integers. A real number is any number which can be represented by a point on the number line or by a terminating or non-terminating, repeating or non-repeating, decimal expression. Real numbers, accordingly, comprise rational and irrational numbers.

Rectangle: ᑭᑉᐹᕆᑦᑐᑯᑖᒃ/ᑎᓴᒪᓂᒃᓯᓇᕐᔪᓕᒃ: kippaarittukutaak/tisamanik sinarjulik: rectangle

A quadrilateral having opposite sides equal and each angle a right angle. A rectangle may be thought of as a parallelogram with a right angle. A rectangle with equal sides is a square.

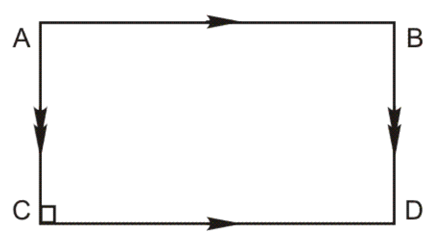

Figure 34: Rectangle

Reduce (Verb): ᒥᑭᓪᓕᕚᓪᓕᑎᑦᑎᓂᖅ: mikillivaallitittiniq: réduire

We reduce a fraction by dividing its numerator and denominator by a common factor. Thus, 30/42 reduces to 10/14. When both numerator and denominator are relatively prime (that is, have no common factor greater than 1), we have reduced to lowest terms. Thus, 30/42 reduced to lowest terms is 5/7.

Reflect (Verb): ᐃᖅᑲᐃᓂᖅ: iqqainiq: réfléchir

To obtain the image in a line or plane.

Reflection: ᒧᒥᑦᑎᓂᖅ: mumittiniq: reflet

The "mirror image" of a geometric figure in a line or plane.

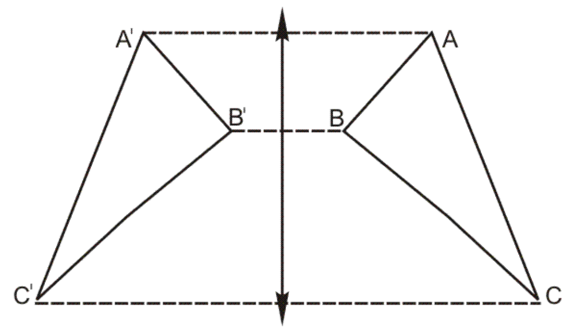

Figure 35: Triangle A'B'C' is the Image of Triangle ABC under Reflection in Line L

Reflex Angle: ᑎᕆᖅᑯᖅ ᓯᓚᒻᒧᐊᖓᔪᖅ: tiriqquq silammuangajuq: angle plein

An angle greater than a straight angle, more specifically an angle whose measure is between 180° and 360°, is called a reflex angle. Reflex angles occur in geometric figures which are concave (nonconvex).

Regroup (Verb): ᑲᑎᑎᕆᒃᑲᓐᓂᕐᓂᖅ/ᐃᒻᒥᒎᓕᖅᑎᑦᑎᓂᖅ: katitirikkannirniq/immiguuliqtittiniq: regrouper

A place-value related concept, regrouping is implied in the "carrying" procedure of integer and decimal addition and the "borrowing" of integer and decimal subtraction. Thus, when we add 27 + 35, the 12 ones are regrouped as 1 ten and 2 ones, giving (in all) 6 tens and 2 ones, or 62. Correspondingly, when we subtract 93 – 27, 9 tens and 3 ones are regrouped as 8 tens and 13 ones; the difference when 27 is subtracted being 6 tens and 6 ones, or 66.

Regular Polygon: ᓯᓇᕐᔪᒐᓴᓕᒃ ᓇᓕᒧᒌᓐᓂᒃ: sinarjugasalik nalimugiinnik: polygone régulier

A regular polygon is a polygon all of whose sides are congruent (equal in length) and all of whose angles (angle measures) are congruent (equal).

Regular Polyhedron: ᐊᒥᓱᓂᒃ ᓇᓕᒧᒌᓂᒃ ᖄᓕᒃ: amisunik nalimugiinik qaalik: polyèdre régulier

A polyhedron is regular if all its faces are congruent polygons and such faces meet at congruent angles.

Relation: ᓈᓴᐅᑎᑦ ᐊᑕᖅᑲᑦᑕᐅᑎᓂᖏᑦ naasautit ataqattautiningit: rapport

A correspondence which assigns to each element of a first set (the domain of the relation) one or more elements of a second set (the range of the relation). If in each instance the range element is unique, the relation is a function.

Remainder: ᐊᒡᒍᖅᑕᐅᓚᐅᖅᑎᓪᓗᒍ ᐊᒥᐊᒃᑯᖓ ᓈᓴᐅᑎ: agguqtaulauqtillugu amiakkunga naasauti: reste

In division, the number, less than the divisor, when the divisor is divided into the dividend the greatest integral number of times.

Repeating Decimal Expression: ᑎᑦᑕᐅᑉ ᑕᓕᖅᐱᐊᓂᑦᑐᑦ ᐅᑎᖅᑕᖅᑐᑦ ᐃᓱᓕᑦᑕᕐᕕᖃᙱᑦᑐᑦ: tittaup taliqpianiittut utiqtaqtut isulittarviqanngittut: fraction périodique

An expression equivalent to a fraction which has denominator factors other than 2 or 5. Thus, in 4/7 = 0.571428571428..., the figures "571428" (called the repetend) repeat endlessly. The repetend is commonly indicated by a bar over the repeating digits.

Rhombus: ᑭᑉᐹᕆᑦᑑᔭᖅ ᐃᖁᖓᔪᖅ: kippaarittuujaq iqungajuq: rhombe

A quadrilateral having four equal sides.

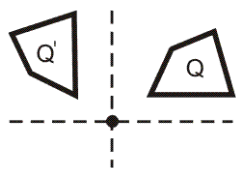

Figure 36: Rhombus

Right Angle: ᑭᑉᐹᕆᑦᑑᔭᖅ ᑎᕆᖅᑯᖅ: kippaarittuujaq tiriqquq: angle droit

The angle formed by perpendicular lines, a square corner. The measure of a right angle is 90°.

Right Triangle: ᑭᑉᐹᕆᒃᑑᔭᒥᒃ ᑎᕆᖅᑯᓕᒃ ᖁᐊᒡᔪᐊᖅᑐᖅ: kippaariktuujamik tiriqqulik quagjuaqtuq: triangle droit

A triangle having a right angle. The side opposite the right angle is called the hypotenuse of the right triangle.

Rods: ᐊᖏᓕᕇᑦ ᓈᓴᐃᔾᔪᑏᑦ: angiliriit naasaijjutiit: bâtonnets

A number of rod-shaped manipulatives exist. The colour-coded Cuisinaire rods are well known and are used especially to teach number combinations and relations and fraction concepts. Fraction bars also are rod- or bar-shaped.

Rotate (Verb): ᑲᐃᕙᓐᓂᖅ: kaivanniq: tourner

To turn a figure about a point. The point is called the "turn centre" or "centre of rotation."

Rotation (Turn): ᕿᔾᔭᓪᓗᐃᓂᖅ: qijjalluiniq: rotation

In transformational geometry, a plane transformation obtained by holding one point fixed (the centre of rotation) and rotating the plane about this point through a given angle in a given dimension.

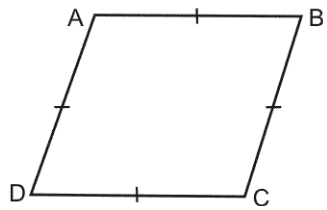

Figure 37: Quadrilateral Q’ is the Image of Quadrilateral Q on Rotation 90° Counterclockwise about Turn Centre O

Ruler: ᐆᑦᑑᑎ/ᐆᒃᑐᕋᐅᑦ: uuttuuti/uukturaut: règle

A straightedge which has been "ruled" to show gradations of length or distance.

S

Scale Drawing: ᑎᑎᖅᑑᔭᖅᓯᒪᔪᑎᒍᑦ ᐆᑦᑑᑏᑦ: titiqtuujaqsimajutigut uuttuutiit: dessin à l’échelle

A drawing, the dimensions of which are proportional to corresponding dimensions of what is being depicted. If the scale is 1:10 (1 to 10, or 1/10), dimensions in the diagram are one-tenth those of the actual object. Maps may be considered a type of scale drawings.

Scale Of Notation: ᐊᕕᑦᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᒥᓲᓂᕆᓂᐊᖅᑕᖏᑦ: avittuqtauniaqtut amisuuniriniaqtangit: échelle de numération

In place-value numeration, the base of the place-value system, which assigns values to the places, is termed the scale of notation. Base ten (decimal) is the common scale of notation, with place values 1, 10, 100 (=10^2), 1000 (=10^3), etc. Base twelve (duodecimal) would have place values (in base-ten notation) 1, 12, 144 (= 12^2), 1728 (= 12^3), etc.

Scalene Triangle: ᐱᖏᓱᓂᒃ ᓱᓇᖅᓯᓕᒃ ᐊᐳᑎᖏᑎᑐᑦᑐᓂᒃ ᖃᐅᐊᓪᓚᐊᖅᑐᖅ (ᐃᖏᔪᐊᖅ): pingasunik sinarjulik ajjigiinngittunik quagjuaqtuq (iinnguaq): triangle scalène

A triangle having three unequal sides. A scalene triangle may be an acute triangle (sides 2, 3, 4 for example), a right triangle (sides 3, 4, 5), or an obtuse triangle (sides 4, 5, 7).

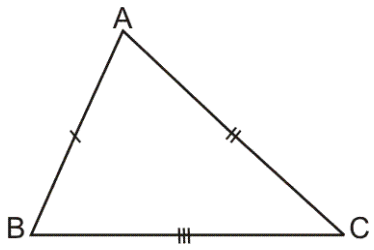

Figure 38: Scalene Triangle

Sector: ᐊᑦᓴᑎᑐᑦ ᐊᓚᔪᖅᓱᒪᔨᖅ ᐊᓚᒪᓗᑭᒃᑲᖅ: piitsatitut agguqsimajuq ammalukitaaq: secteur

A sector of a circle is a portion bounded by two radii and a part of the circumference.

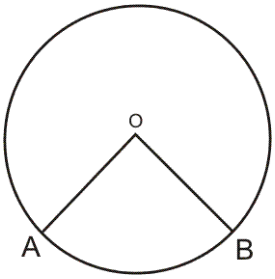

Figure 39: Sector of a circle

Segment: ᑐᑭᒧᑦ ᐃᓕᑲᑯᓕᖅᑎᑕᐅᓱᒪᔨᖅ ᐊᓚᒪᓗᑭᒃᑲᖅ: tukimut ilaakkuuliqtitausimajuq ammalukitaaq: segment

A line segment is the part of a line determined by two end-points. A segment of a circle is determined by a chord and a part of the circumference cut off by the chord.

Semicircle: ᐊᕝᕙᑐᐃᓐᓇᖅ ᐊᒻᒪᓗᑭᑖᖅ: avvatuinnaq ammalukitaaq: demi-cercle

A semicircle is a half circle. The term may apply to the curve, the perimeter, or to the interior area of the figure.

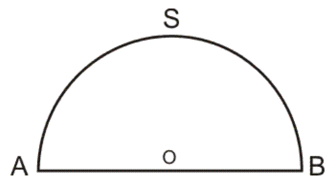

Figure 40: Semicircle

Set: ᑲᑎᑎᖅᓯᒪᔪᑦ: katitiqsimajut: collection

A collection of objects or concepts sharing some common property.

Seven: ᐱᖓᓲᔪᖅᑐᑦᐊᑕᐅᓯᕐᓗ/ᐊᕐᕕᓂᓖᒃᒪᕐᕉᒃ/ᓯᑕᒪᐅᔪᙱᒋᒐᖅᑐᑦ: pingasuujuqtut atausirlu/arviniliik marruuk/sitamaujunngigaqtut: sept

7; the seventh counting number. Sevens groupings are not common, but the seven days of the week are a familiar example.

Shape: ᓴᓇᒪᓂᖓ: sanamaninga: forme

Geometric figures having shapes familiar to young children may include the circle, triangle, square, hexagon, and octagon. Among solid figures, the sphere (ball), cube (block), rectangular solid (brick), cylinder (tin can), and pyramid may be known.

Show: ᑕᑯᔭᐅᑎᑦᑎᓂᖅ: takujautittiniq: démontrer

Students may be required to "show": that is, to demonstrate the correctness of a result or to provide a plausible argument.

Side: ᓯᓇᕐᔪᒃ (edge) ᓴᓂᕋᖓ (surface): sinarjuk (edge) saniranga (surface): bord (polygone), tranche (solide)

We speak of a side of a polygon, but of an edge of a geometric solid.

Similar: ᐊᔾᔨᒐᓚᖓ: ajjigalanga: semblable

Geometric figures are said to be similar when they have the same shape but differ in size. All squares are similar. All circles are similar. In general, polygons are similar when their corresponding angles are equal in measure and their corresponding sides are proportional (have equal ratios of measures). Such reasoning extends to three-dimensional figures.

Simple Curve: ᐊᑐᐊᒐᖅ ᖃᓪᓕᖃᑦᑕᐅᑎᙱᑦᑐᖅ: atuagaq qalliqattautinngittuq: courbe simple

Essentially a curve that does not cross itself; a curve which, when traced, has no point that is passed twice except the starting point, which may also be the ending point.

Simplify (Verb): ᑐᑭᓯᓇᖅᓯᑎᑦᑎᓂᖅ: tukisinaqsitittiniq: simplifier

We simplify a mathematical expression by collecting terms, where possible, and performing indicated or implied mathematical operations. Thus, $x + 2x + 3x + 4 = 6x + 4$. We simplify a fraction by reducing it to lowest terms.

Six: ᐱᖓᓲᔪᖅᑐᑦ/ᐊᕐᕕᓂᓕᑦ: pingasuujuqtut/arvinilit: six

6; the sixth counting number. Six is a "perfect number," since 6 equals the sum of its proper divisors (3 + 2 + 1).

Size: ᐊᖏᓂᖓ: angininga: grandeur

The size of a figure may be a measure of length, area, or volume.

Skew: ᑐᑭᓕᐊᖅᑐᑦ ᓴᓂᖅᑯᑦᑐᑦ: tukiliaqtut saniqquttut: oblique

Lines are said to be skew when they neither are parallel nor do they meet: that is, when they do not lie in a plane.

Skip Counting: ᐊᓪᓗᐃᑦᑕᖅᑐᓂ ᓈᓴᐃᓂᖅ: alluittaqtuni naasainiq: calcul à sauts

A drill activity in which a starting number is repeatedly increased or decreased by a constant amount. Thus, skip counting forwards, 7, 10, 13, 16 ...; skip counting backwards, 25, 21, 17, 13 ....

Solid: ᑕᖏᓕᒃ: tangilik: solide (angle); dans l'espace (géométrie); de volume (mesure)

Having length, width, and depth. The measure of the occupied space is the volume.

Solve (Verb): ᑐᑭᑖᖅᑎᑦᑎᓂᖅ: tukitaaqtittiniq: résoudre

Students solve a problem by obtaining an answer which satisfies conditions of the original problem.

Sphere: ᐊᖅᓴᖅ: aqsaq: sphère

A perfectly round solid.

Spiral: ᓄᖃᖅᓯᕋᐅᔭᖅ/ᐱᑎᑦᓯᕋᖅ: nuqaqsiraujaq/pititsiraq: spirale

A continuous curve that winds about a central point.

Square: ᑭᖏᓪᓕᕐᒪᖅ: kippaarittuq: carré

A quadrilateral having equal sides and right angles.

Square A Number (Verb): ᓇᓴᐅᑎᐅᕗᑦ ᐃᓕᒥᓂ ᐊᒥᓱᑭᖅᑕᕐᓂᖓ: naasautiup imminut amisuruqtarninga: former le carré d'un nombre

To multiply a number by itself. Thus, we square 3 to obtain 3 x 3, or 9.

Square Centimetre: ᐃᓗᐊᑕ ᐊᖏᑐᓂᖓ ᓴᖅᑎᑕᑎᔪᑦ ᐅᖅᑐᕐᖅᑕᐅᑦᓗᓂ: iluata angininga santimiitatigut uukturaqtaulluni: centimètre carré

A unit of surface area equivalent to a square 1 cm on a side. Commonly used to nearest square centimetre or nearest 0.1 cm^2 precision in classroom exercises and experiences. The symbol is cm^2, but read "square centimetre(s)."

Square Kilometre: ᐃᓗᐊᑕ ᐊᖏᑐᓂᖓ ᑭᓗᒍᑕᑎᔪᑦ ᐅᖅᑐᕐᖅᑕᐅᑦᓗᓂ: iluata angininga kilumiitatigut uukturaqtaulluni: kilomètre carré

A unit of surface area (commonly land measure) equivalent to a square 1 km on a side. Equivalent to 100 hectares. The symbol is km^2, but read "square kilometre(s)."

Square Metre: ᐃᓗᐊᑕ ᐊᖏᑐᓂᖓ ᒥᑕᑎᔪᑦ ᐅᖅᑐᕐᖅᑕᐅᑦᓗᓂ: iluata angininga miitatigut uukturaqtaulluni: mètre carré

The base unit of area measure (carpeting, a garden plot?), equivalent to a square 1 m on a side. The symbol is m^2, but read "square metre(s)."

Square Number: ᓇᓴᐅᑦ ᐃᓕᒥᓂ ᐊᒥᓱᑭᖅᑕᖅᓯᒪᔪᖅ: naasaut imminut amisuruqtaqsimajuq: nombre carré

With reference to whole numbers, the result of multiplying a number by itself. The term has its origin in "squaring," to compute the area of a square region. Thus, 0, 1, 4, 9 ..., and 289..., are square numbers. 289 is said to be the square of 17.

Square Of A Number: ᓇᓴᐅᑎᐅᕗᑦ ᐊᒥᓱᑭᖅᑕᕆᔨᒥ ᐃᓕᒥᓂ ᖃᐅᔨᐅᓂᖓ: naasautiup amisuruqtariirami imminut qassiuninga: nombre élevé au carré

The square of a number is the result of multiplying the number by itself. Thus, 81 is the square of 9, 25/36 is the square of 5/6, and +49 is the square of –7.

Square Root Of A Number: ᓈᓴᐅᑦ ᐃᒻᒥᓄᑦ ᐊᒥᓱᕈᖅᑕᖅᑐᖅ: naasaut imminut amisuruqtaqtuq: racine carrée

Taking the square root is the inverse of squaring. Thus, if $13^2 = 169$, then $\sqrt{169}$ (the square root of 169) is 13. Most numbers do not have whole number square roots. Thus, $\sqrt{89} = 9.43398 +$. Older textbooks presented algorithms (repetitive computational techniques) for computing such square roots. Basic calculators today commonly have a square root (√) button, which serves this purpose. More instructive is to use the squaring capability of such a calculator to obtain increasingly precise approximations of a square root.

Statistics: ᖃᐅᔾᓴᕈᑎᒥᓃᑦ ᓈᓴᖅᑕᐅᓯᒪᔪᑦ: qaujisarutiminiit naasaqtausimajut: statistiques

The branch of mathematics that collects, organizes, and presents data (descriptive statistics) and seeks generalizations and conclusions (inferential statistics).

Straight Angle: ᐃᓯᕕᖓᔪᖅ: isivingajuq: angle de 180°

The angle formed at a point by two halves of the same line. Its measure is 180°.

Straightedge: ᑐᑭᓕᐊᖅᑐᓕᐅᕈᑦ: tukiliaqtuliurut: règle sans marques

An unmarked ruler (or a ruler with its gradations disregarded) used to construct a straight line. Traditional geometric constructions made use of straightedge and compasses.

Subtract: ᐃᓚᙵᐃᓂᖅ: ilanngainiq: soustraire

When we subtract, we essentially seek a missing addend. "14: 9" asks, "What number must be added to 9 to obtain 14?" Since 9 + 5 = 14, 14 : 9 = 5.

Subtraction: ᐃᓚᙵᑎᕆᓂᖅ: ilanngaatiriniq: soustraction

The binary operation that is the inverse of addition. If 3 + 4 = 7, then 7 : 3 = 4 and 7 : 4 = 3.

Subtrahend: ᐃᓚᙵᐃᒍᑦ: ilanngaigut: nombre à retrancher

In subtraction, the quantity being subtracted. Thus, minuend minus subtrahend equals difference, the result of subtraction. In 98: 83 = 15, 83 is the subtrahend.

Sum: ᑲᑎᑎᓚᐅᕐᓗᒋᑦ ᖃᔅᓯᐅᓂᖓ: katitilaurlugit qassiuninga: somme

The result of addition. Thus, in 13 + 9 = 22, 13 and 9 are addends or summands, and 22 is the sum.

Summand: ᐊᓴᐅᑎᑦ ᑲᑎᑎᖅᑕᑦ: naasautit katitiqtat: une des quantités étant additionnées

One of the quantities being added. Summands, or addends, combine to give the sum.

Summarize (Verb): ᓇᐃᓕᓕᑭᐊᖅᑎᑦᑎᓂᖅ: nailligiaqtittiniq: résumer

Children may summarize data in the form of a table (tabulation) or their findings in a summary paragraph.

Superimpose: ᐊᖏᑎᓱᖅᑲᐅᔪᕐᓂᖅ: angijuqqausirniq: superposer

One figure may be superimposed on another in an attempt to demonstrate congruence.

T

Table: ᓇᓗᓀᐃᕆᐅᑎ ᐊᓴᐅᑎᓄᑦ: nalunaijauti naasautinut: table

Organized data arranged as rows and columns with appropriate title and headings.

Tabulate (Verb): ᓇᓗᓀᐃᕆᐅᑎᓂᒃ ᑕᑕᑎᓚᓂᖅ: nalunaijautinik tatatiriniq: disposer en tableaux

To arrange data or results in tabular form, in a table. The technique is useful in a range of mathematical investigations, in plotting, and in preparing statistical or scientific results.

Tally: ᓇᓗᓀᐃᒃᑯᑕᖅ ᖃᑦᓯᐅᓂᖏᓐᓂᒃ: nalunaikkutaq qassiuninginnik: pointer

To mark off each occurrence of a value or other variable; a process preliminary to much tabulation and statistical graphing.

Tangram: ᓴᐃᐸᓂᒃ ᓴᓇᒪᓂᓚᒃ ᐊᑦᑭᓴᓪᓚᖅ ᑭᐸᓯᓚᑦᑐᖅ: saipanik sanamanilik aaqqissugaq kippaarittuq: tangram

A geometric manipulative of Chinese origin in which a square is dissected into seven polygonal pieces which then are reassembled in imaginative constructions.

Temperature: ᐅᓇᕐᓂᖏᓐᓄ/ᓂᕐᓚᓇᕐᓂᖏᓐᓄ: uunarninga/nillinarninga: température

The measure of the warmth or coldness of an object. The Celsius temperature scale (formerly called centigrade) takes the freezing point of water to be 0˚ and the boiling point to be 100˚.

Ten: ᖁᑎᓕᑦ: qulit: dix

10, the tenth counting number. The common base of notation.

Terminating Decimal Expression: ᑎᑦᑕᐅᑉ ᑕᓕᖅᐱᐊᓃᑦᑐᑦ ᐃᓱᓕᑦᑕᕐᕕᓖᑦ: tittaup taliqpianiittut isulittarviliit: expression décimale qui se termine

A fraction whose denominator has prime factors only of fives and twos yields a decimal expression which will terminate, or stop, after a finite number of decimal places.

Tessellation: ᑖᓐᓇᑦᑕᐃᓐᓇᖅ ᑕᐅᕗᖓᓕᒫᖅ ᓴᓇᔭᒃᓴᐅᑎᓯᒪᔪᖅ: taannattainnaq tauvungalimaaq sanajaksautisimajuq: mosaïque

In plane geometry a tessellation is a filling of the plane with repetitions of one or more geometric figures in such a way that no figures overlap and there are no gaps. Three regular polygons in themselves tessellate the plane: the triangle, square, and hexagon. Indeed, all triangles and quadrilaterals tessellate, as do countless other polygons and combinations of polygons.

Tetrahedron: ᓯᑕᒪᓂᒃ ᐊᔾᔩᒌᓂᒃ ᖄᓕᒃ: sitamanik ajjiigiinik qaalik: tétraèdre

A polyhedron having four faces, all necessarily triangular. A regular tetrahedron has faces which are congruent equilateral triangles. A tetrahedron is a triangular pyramid. *See Polyhedron.*

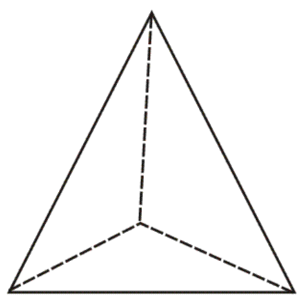

Figure 41: Regular Tetrahedron

Tetriamond: ᐄᙳᐊᓕᒃ ᓯᑕᒪᓂᒃ: iinngualik sitamanik: tétriamant

A figure or manipulative comprising four congruent equilateral triangles having one or more common sides. *See Polyiamond.*

Tetromino: ᑭᑉᐹᕆᑦᑐᓕᒃ ᓯᑕᒪᓂᒃ: kippaarittulik sitamanik: tétromino

A figure or manipulative comprising four congruent squares having one or more common sides.

Thousand: ᑕᐅᓴᑦ: tausat: mille

Ten hundreds.

Thousands Place: ᑎᑦᑕᐅᑉ ᓴᐅᒥᖓᓃᑦᑐᖅ ᓯᑕᒪᖓᓂ: tittaup sauminganiittuq sitamangani: place des milles

The fourth place to the left of the decimal in base ten place value notation. Thus, in 2345.7, 2 is in the thousands place. The value of the 2, accordingly, is 2000.

Thousandth: ᑕᐅᓴᓄᑦ ᐊᕕᒃᑐᖅᓯᒪᔪᖅ: Tausanut Aviktuqsimajuq: millième

The one-thousandth part.

Thousandths Place: ᑎᑦᑕᐅᑉ ᑕᓕᖅ ᐱᖓᓃᑦᑐᖅᐱᖓᔪᐊᓐᓂ: tittaup taliqpinganiittuq pingajuanni: place des millièmes

The third place to the right of the decimal in base ten place value notation. Thus, in 12.378, 8 is in the thousandths place. The value of the 8, accordingly, is 8/1000.

Three: ᐱᖓᓱᑦ: pingasut: trois

3; the third counting number.

Three-Dimensional: ᐊᓂᖓᔪᖅ: aningajuq: à trois dimensions

Having length, width, and depth. A cube or a sphere is a three-dimensional figure.

Time: ᐱᕕᑦᓴᖅ: pivitsaq: temps

Children learn to "tell time." Division of the hour into 60 minutes each of 60 seconds is of antiquity, being rooted in the Babylonian sexagesimal (base sixty) scale of notation.

Tonne: ᑕᓐ (ᑎ): tan (ti): tonne

A measurement unit of mass ("weight") equal to 1000 kilograms. This international unit should not be confused with the traditional "short ton" (2000 pounds) and "long ton" (20 hundredweights, each 8 stones or 112 pounds), although it approximates both. A cubic metre of water has a mass of approximately one tonne.

Transformation: ᐊᓯᔾᔩᓂᖅ: asijjiiniq: conversion

Transformations in school geometry which preserve shape and size are translations (slides), reflections (flips), rotations (turns), and the combination called a glide reflection. A dilatation preserves shape but not size.

Translation (Slide): ᓅᑦᑎᓂᖅ: nuuttiniq: translation

In transformational geometry, a plane transformation that moves every point a specified distance in a specified direction.

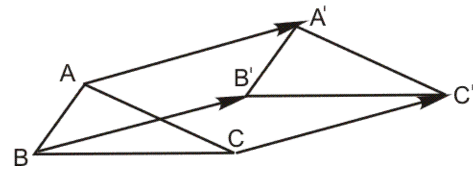

Figure 42: Triangle A'B'C' is the Image of Triangle ABC under the Indicated Translation

Transversal: ᐊᑐᐊᒐᓂᒃ ᑭᐱᓯᔪᖅ: atuaganik kipisijuq: transversale

In geometry, a line which crosses one or more other lines, or a plane which crosses one or more other planes.

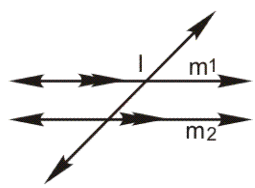

Figure 43: Transversal L crosses Parallel Lines M1 and M2

Trapezoid: ᑎᓴᒪᓂᒃ ᓯᓇᕐᔪᓕᑦ ᒪᕐᕈᒃ ᑐᑭᓕᕆᓪᓗᑎᒃ: tisamanik sinarjuliit marruuk tukiliriillutik: trapézoïde

A plane geometric figure usually defined as having exactly one pair of parallel sides. A trapezoid may be isosceles and may be right angled.

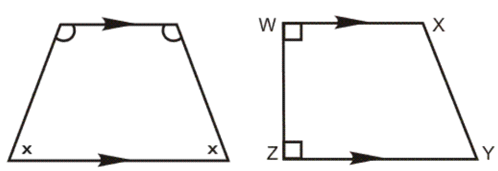

Figure 44: Isosceles Trapezoid and Right Trapezoid

Triangle: ᖁᐊᒡᔪᐊᖅᑐᖅ/ᐄᙵᐊᖅ: quagjuaqtuq/iinnguaq: triangle

A polygon having three sides and three angles. A regular triangle is said to be isosceles and has three equal sides and 60˚ angles. Triangles may be classified by sides as equilateral, isosceles, and scalene, and by angles as acute-angled (acute triangle), right-angled (right triangle), and obtuse-angled (obtuse triangle).

Trillion: ᔅᓕᐊᖅ: tulian: trillion 10^{18}

In American and in Canadian-English usage, one thousand billion (10^{12}). In European and in Canadian-French usage one million billion (10^{18}). (In this convention, one thousand billion is called a billiard.)

Twenty: ᐊᕿᑎᖅ: avatit: vingt

20; the twentieth counting number. In Inuit and several other societies, a traditional base of counting.

Two: Lᖅᑭᒃ: marruuk: deux

2; the second counting number. The base for a particularly simple numeration system (called binary).

Two-Dimensional: ᓴᖅᑐᒍᖅ: saattujaaq: à deux dimensions

Having length and width; a subset of a plane.

U

Unary Operation: ᐊᑕᐅᓯᖏᒃ ᓇᓴᐅᓯᓚᓂᖅ: atausirmik naasausiriniq: opération unaire

A mathematical procedure applied to a single element of a mathematical system. Taking the reciprocal of a rational number is a unary operation: the reciprocal of 2 is 1/2. Taking the negative of an integer is a unary operation: the negative of -7 is +7. Such operations as addition and multiplication of counting numbers, conventionally applied to two elements at a time, are called binary operations: 6 x 9 = 54, with multiplication the binary operation.

Undecagon: ᖁᔨᓂᒃ ᐊᑕᐅᓯᖏᓪᓗ ᓯᓇᖅᓯᒃ: qulinik atausirmillu sinarjulik: hendécagone

A polygon having eleven sides. *See Polygon.*

Unit Fraction: ᐊᐃᒃᑐᖅᓯᒪᓂᖅ: aviktuqsimaniq: fraction unitaire

A fraction having 1 as numerator. Thus, 1/2, 1/7, but not 5/8, are unit fractions. In Egyptian mathematics, all fractions essentially were unit fractions, and 18/20 would be looked upon as 1/2 + 1/4 + 1/5.

Unit Number: ᐃᖏᓐᓄᑦ ᑭᓯᐊᓂ ᐊᒃᔪᑭᓇᖅᑐᖅ: imminut kisiani aggurunnaqtuq: nombre unitaire

Where numbers are considered as prime or composite, the "unit" is the unique number, 1. In more advanced contexts, 1, –1, *i*, –*i* may be considered as units.

Unlike Fractions: ᐃᓚᒍᑕᓂᑦ ᐊᓪᓕᖕᖏᒃ ᐊᔾᔨᒌᙱᑦᑑᒃ: ilagutanit allingik ajjigiinngittuuk: fractions différentes

Fractions having different denominators. Such fractions normally are converted to equivalent like fractions prior to addition or subtraction.

V

Verify (Verb): ᑐᑭᓯᒋᐊᒃᑲᓐᓂᕐᓂᖅ: tukisigiakkannirniq: contrôler

To show the correctness of a result. Commonly used verification techniques ("checks") involve inverse operations (e.g., add to check a subtraction), or performing an operation in a different manner (multiply in the opposite order).

Vertex: ᑎᕆᖅᑰᑉ ᓄᕗᖓ: tiriqquup nuvunga: vertex

In an angle, the point common to the rays. In a polygon, a point where sides intersect. In a polyhedron, a point where edges intersect.

Vertical: ᖁᒻᒧᑦ ᐊᒻᒧᓪᓗ ᑐᑭᒧᐊᖓᔪᖅ: qummut ammullu tukimuangajuq: axe vertical

In a rectangular coordinate system, the vertical axis or y-axis plots the second coordinate ("y-coordinate" or "ordinate") of the ordered pair.

Volume: ᓴᓂᒧᑦ ᑐᑭᒧᑦ ᖁᒻᒧᓪᓗ ᐊᖏᓂᖓ: sanimut tukimut qummullu anginga: volume

The measure of the amount of space occupied by an object; measured in cubic units.

Volume Capacity Measure: ᐃᓗᑐᓂᖓ: ilutuninga: mesure de volume/capacité

1 mL = 1 cm^3; 1000 mL = 1 L = 1000 cm^3; 1 kL = 1 m^3
The litre is convenient as a carton of milk or container of soft drink, but it is not true that one system necessarily is to be preferred for solids or volumes and the other for fluids or capacities.

W

Weight: ᐅᖁᒪᐃᓐᓂᖓ: uqumainninga: pesanteur

The force on an object due to gravity. The weight of an object is dependent on its mass, so we frequently weigh to determine mass, although mass still exists in weightlessness and is measured by other means. Strictly speaking, weight is measured in force units (newtons), not in mass units (grams).

Whole: ᐃᓗᐃᑦᑐᖅ: iluittuq: entier

Refers to 1, the entire object, when fractional parts are being considered. *See Whole Number.*

Whole Number: ᓈᓴᐃᔾᔪᑎᑦ ᔨᕈ ᐃᓚᒋᔮᐅᓪᓗᓂ: naasaijjutiit jiru ilagijaulluni: nombre entier

In school mathematics, one of the numbers 0, 1, 2 ...; a non-negative integer, without a fractional part.

Width: ᐃᑭᖅᑐᓂᖓ: ikiqtuninga: largeur

Distance across. Dimensions of a rectangle may be considered as width and length or altitude and base. The greatest width of a circle is its diameter.

Word Problem (Story Problem): ᐅᓂᒃᑳᓕᐊᖑᓯᒪᔪᖅ ᑭᐅᒋᐊᓕᒃ: unikkaaliangusimajuq kiugialik: problème à mots (problème à contes)

A mathematical problem presented in word or story form. The student is to interpret the meaning and intent of the problem, place the question in mathematical terms, reach a solution, and interpret the solution in the context of the original problem. Such problems may call for thought and originality, or may be "type" problems and be treated as routine.

Y

Year: ᐊᕐᕌᒍ: arraagu: année

The unit of time measure based upon the period of Earth's revolution about the sun. The base unit of time measure is the second. However, the year and its multiples (decade, century, millenium) are universally used in measuring longer intervals.

Z

Zero: ᔨᕈ: jiru: zéro

Zero (0), corresponding to the number in an empty set, is among the most important and useful of mathematical ideas, because
(i) zero permits extension to negative numbers (numbers "below zero"); and
(ii) zero serves as an essential placeholder for place value in numeration.
Historically, such early numeration systems as Egyptian and Roman did not have a zero, and this influenced both their methods of reckoning and the compactness with which number values could be expressed.