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- I am here to help - please ask questions!
- Visit during lunch, free periods, before and after school 7:30 AM-4:30 PM
- Make an appointment with the librarian to help you with research, citations, writing, book selection, etc. OR just stop in!
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Math in the Library

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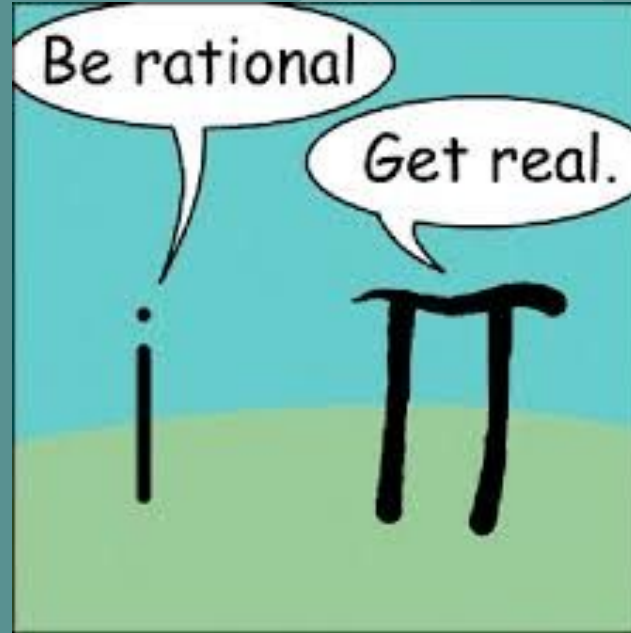


Overview:

- Tutor.com (Bryant Library Database*)
- Explora (Bryant Library Database -214900000000001)
- Khan Academy (Free website)
- Phet (Free website)
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some math
help
occasionally.



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WELCOME TO ROSLYN HIGH SCHOOL LIBRARY!



Library Open: 7:30 AM - 4:30 PM

Virtual Library Open - 24/7

Staff:

Christine Parente
Library Media Specialist

Kim Norberg
Library Assistant

Phone: (516)801-5146

Email: cparente@roslynschools.org

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- [HS Library Catalog - Follett Destiny](#)
- [HS Library Catalog - Destiny Discover Ebooks](#)
- [Nassau Public Library Catalog - ALIS Search](#)
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[Mrs. Parente's "Evaluating Websites" PowerPoint](#)

[Mrs. Parente's "Library Subscription Databases" PowerPoint](#)

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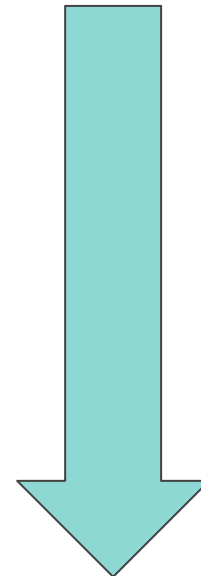
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World Teacher's Day, October 5

The United Nations' World Teacher's Day celebrates the role teachers or educators play in providing quality education at all levels in every country. Pedagogy is the discipline that studies education as a sociohistorical phenomenon and as a practice. The term derives from the Greek words paidos (child) and gogia (to guide).

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3. Absolute.



Reference

Funk & Wagnalls New World Encyclopedia. 2017. 1p.

Absolute, term used to denote whatever is in no way dependent on or limited by anything else. Thus, in ethics an absolute value is one that is good in itself rather than useful for obtaining some...



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4. Miller, Merton Howard.



Reference

Funk & Wagnalls New World Encyclopedia. 2017. 1p.

Miller, Merton Howard (1923-2000), American financial economist and Nobel laureate. Born on May 16, 1923, in Boston, Mass., he was educated at Harvard and Johns Hopkins universities.



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5. Geometric Progression.



Reference

Funk & Wagnalls New World Encyclopedia. 2017. 1p.

Geometric Progression, in mathematics, sequence of numbers in which the ratio of any term, after the first, to the preceding term is a fixed number, called the common ratio. For example, the sequ...



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6. Calculus.



Reference

Funk & Wagnalls New World Encyclopedia. 2017. 1p.

Calculus, also the calculus, branch of mathematics concerned with the study of such concepts as the rate of change of one variable quantity with respect to another, the slope of a curve at a pres...

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Title: Geometric Progression 2017

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Geometric Progression



Geometric Progression, in mathematics, sequence of numbers in which the ratio of any term, after the first, to the preceding term is a fixed number, called the common ratio. For example, the sequence of numbers 2, 4, 8, 16, 32, 64, 128 is a geometric progression in which the common ratio is 2, and 1, 1/9, 1/27, 1/81, 1/243, ... 1/3ⁱ, ... is a geometric progression in which the common ratio is 1/3. The first is a finite geometric progression with seven terms; the second is an infinite geometric progression. In general, a geometric progression may be described by denoting the first term in the progression by a , the common ratio by r , and, in a finite progression, the number of terms by n . A finite geometric progression may then be written formally as $a, ar, ar^2, ar^3, ar^4, \dots, ar^{n-1}$ and an infinite geometric progression as $a, ar, ar^2, \dots, ar^i, \dots$

In general, if the n th term of a geometric progression is denoted by an , it follows from the definition that $an = ar^{n-1}$

If the symbol S_n denotes the sum of the first n terms of a geometric progression, it can be proved that

$$S_n = \frac{a(1-r^n)}{1-r}$$

The terms in a geometric progression between a_i and a_j , $i < j$, are called geometric means. The geometric mean between two positive numbers x and y is the same as the mean proportional \sqrt{xy} between the two numbers. In particular, an is the geometric mean or mean proportional between ar^{n-1} and ar^{n+1} .

The formal sum of the terms of an infinite geometric progression, written as $a + ar + ar^2 + ar^3 + ar^4 + \dots + ar^{n-1} + ar^n \dots$ is called a geometric series (see [sequence and series](#)). In analysis it can be proved that a geometric series converges if the absolute value of the common ratio is less than 1; otherwise, the series diverges. If the series does converge, the limit, S , can be shown to be

$$S = \lim_{n \rightarrow \infty} S_n = \frac{a}{1-r}$$

The symbol [dcl073] S_n is read "the limit of S_n as n increases without bound."

Geometric series and geometric progressions have many applications in the physical, biological, and social sciences, as well as in investments and banking. Many problems in compound interest and annuities are easily solved using these concepts. See also [arithmetic progression](#).

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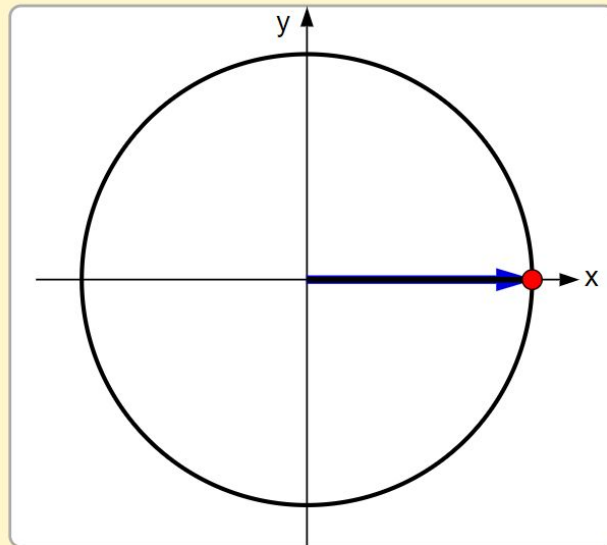
$(x,y) = (1.000, 0.000)$

angle = 0.0°

$$\cos \theta = \frac{x}{1} = 1.000$$

☒ degrees

☐ radians



☒ cos

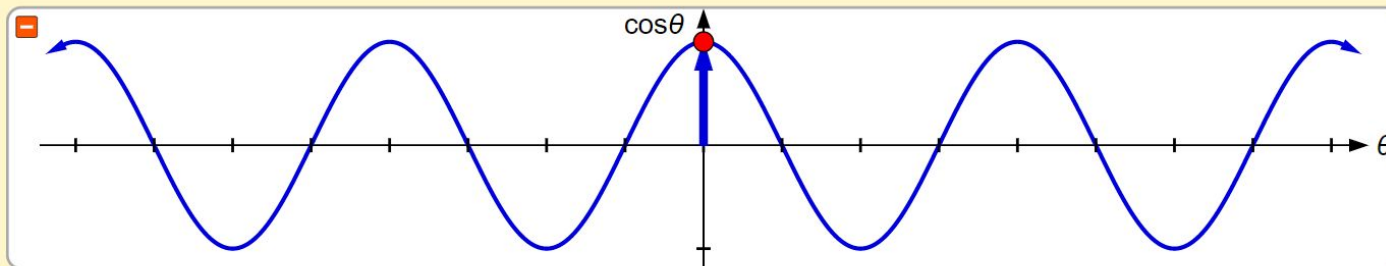
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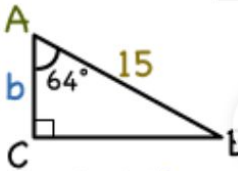
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how do you find a missing side of a right triangle using cosine?

Find b :



$\cos(A) = \frac{\text{Adj}}{\text{Hyp}}$

$\cos(64^\circ) = \frac{b}{15}$

$15 \cdot 0.4384 \approx \frac{b}{15} \cdot 15$

$b = 6.576 \approx 6.58$

0:00 / 5:07

Note:

The cosine ratio is not only used to identify a ratio between two sides of a right triangle, but it can also be used to find a missing side length. This tutorial shows you how to use the cosine ratio to find that missing measurement!

Keywords:

problem triangle right triangle angle
right angle cosine hypotenuse adjacent
adjacent side trigonometry trig trig ratio
trigonometric ratio ratio cosine ratio leg
length find side length find leg length side length
leg length

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