

GLOSSARY

Area (A):

The measure, in space units, of the interior region of a two-dimensional figure or the surface of a three-dimensional figure.

Arrays:

An arrangement of objects in equal rows.

Average (mean):

The sum of a set of numbers divided by the number of numbers in the set. The mean is often referred to as the average.

Circumference (C):

The distance around a circle.

Customary Units of Measure:

A system of measurement used in the United States which includes measurement of length, weight, and temperature.

Decimal Number:

A number written using base ten and containing a decimal point.

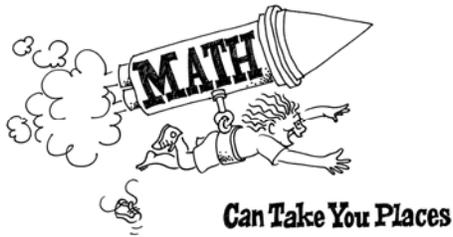
Diameter:

A chord or line segment that passes through the center of a circle and which has two endpoints on the circle.

Equivalency:

Equivalent: Having the same value, but expressed in a different form. For example, a fraction and a decimal may represent the same value but be expressed in a different form.

Equivalent Fractions: Fractions that have different denominators but have the same value.



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Estimation (strategies):

Estimate: To find a number close to an exact amount. An estimate tells about how much or about how many. It is not an exact answer. It is a ballpark figure when you cannot calculate exactly.

(1) Look at the answers to the question and decide whether you need to round. If you need to round, look at your answers to find out what place value they rounded. Round the numbers first, then add or subtract. Change the numbers in the problem and write the rounded number above them.

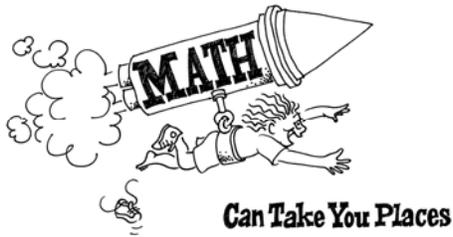
(2) Rounding is one estimation skill. Decide what place value you need to round to. Look at the digit to the right of the place value to be rounded and circle it. If the number is five or more, increase the circled number by 1 and the numbers to the right become zeros. If the number is less than five, leave the circled number as is and the other numbers to the right become zeros.

(3) **Compatible Numbers:** A pair of numbers that is easy to work with that can be added, subtracted, multiplied, or divided with ease. Examples might be numbers close to a multiple of 10, 100 or 1,000.

(4) **Front-end Estimation:** Estimating sums or differences using just the front digits. For example, when you estimate the sums of 137, 29, and 233: 137 becomes 130, 29 becomes 20, 233 becomes 230. The sum is $130 + 20 + 230 = 380$.

OR: If one estimates the difference between 15.4 and 9.3, 15.4 becomes 15.0 and 9.3 becomes 9.0. Therefore, $15.0 - 9.0 = 6.0$.

(5) **Estimating with Fractions:** Using benchmarks – or numbers – that are easy to work with. Common benchmarks for estimating with fractions are 0, $\frac{1}{2}$, and 1. Use a number line or a picture to help you decide which fraction is closest to 0, $\frac{1}{2}$ or 1.



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Fact Families:

Number sentences that relate addition and subtraction or multiplication and division. Each number sentence in the fact family has the same numbers. For example: $11 + 2 = 13$, $2 + 11 = 13$, $13 - 2 = 11$, and $13 - 11 = 2$.

Fraction:

A way of representing part of a whole or part of a group by telling the number of equal parts in the whole and the number of those parts you are describing.

Height (h):

(1) The length of a perpendicular from a vertex to the opposite side of a plane figure. (2) The length of a perpendicular from the vertex to the base of a pyramid or a cone. (3) The length of a perpendicular between the bases of a prism or cylinder.

Length (l):

The distance along a line or figure from one point to another.

Median:

When the numbers are arranged from least to greatest, the middle number of a set of numbers, or the mean of two middle numbers when the set has two middle numbers.

Metric System:

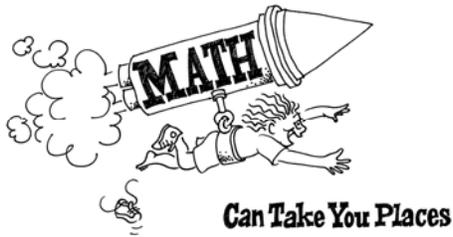
A system of measurement based on tens.

Mode:

The number that appears most frequently in a set of numbers. There may be one, more than one, or no mode.

Patterns:

A number, order of, or form that repeats and is predictable.



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Perimeter (P):

The distance around a figure.

Proportion:

An equation showing two equivalent ratios.

Radius (r):

The line segment from the center of a circle to any point on the circle.

Range:

The difference between the greatest and the least value in a set of data.

Ratio:

A comparison of two numbers or measures of like units using division. Ratios can be expressed as fractions, decimals, percents or words.

Scale:

- (1) The ratio of length used in a drawing, map or model to its length in reality.
- (2) A system of marks at fixed intervals used in measurement or graphing.
- (3) An instrument used for weighing.

Volume (V):

The number of cubic units it takes to fill a solid.

Weight:

A measure of the heaviness of an object.

Width (w):

One dimension of a two-or three-dimensional figure.

Resource:

Math to Know, A Mathematics Handbook by Mary C. Cavanagh, a Great Source Publication