## Introduction to Lines and Angles

Created: Thursday, 21 July 2011 07:20 | Published: Thursday, 21 July 2011 07:20 | Written by Super User | Print

## Lines



A line is a straight one-dimensional figure having no thickness and extending infinitely in both directions.

A line is sometimes called astraight line.


## Line Segment



Aline segment is a part of a line that is bounded by two distinct end points and contains every point on the line between its end points.

## Ray



Ray is part of a line which is finite in one direction, butinfinite in the other.

## Parallel lines or Non intersecting lines


direction and is read as ' 1 is parallel to $m$ '
Ingeometry, two lines can be non-intersecting if and only if they are parallel. A pair of non-parallel lines will intersect somewhere on some point on extension. But parallel lines are never intersecting at any point even if they are extended up to infinity.


Lines $m$ and $n$ intersect

## Intersecting lines

$$
\text { at point } P
$$

The intersection of lines
$m$ and $n$ is point $P$

Lines that have one and only one point in common are known as intersecting lines. The point where two lines intersect or cross each other is called thepoint of intersection. The number and locations of possible intersections between two can be only at one point. But the angles formed between them can be infinite. That is, two lines can pass through one point, intersecting each other in infinite ways.

## Perpendicular Lines



Perpendicular means "at right angles". A line meeting another at a right angle or $90^{\circ}$ is said to be perpendicular to it.


Two rays that share the same endpoint form anangle. The point where the rays intersect is called the vertex of the angle. The two rays are called the sides of the angle.

## Degrees: Measuring Angles

We measure the size of an angle using degrees.
Example:



## Acute Angles

An acute angle is an angle measuring between 0 and 90 degrees.


## Obtuse Angles

An obtuse angle is an angle measuring between 90 and 180 degrees.


## Right Angles

A right angle is an angle measuring 90 degrees. Two lines or line segments that meet at a right angle are said to be perpendicular. Note that any two right angles are supplementary angles (a right angle is its own angle supplement).


## Angle Bisector

An angle bisector is a ray that divides an angle into two equal angles.

Now try it yourself! Should you still need any help,click here to schedule live online session with e Tutor!

## About eAge Tutoring :

eAgeTutor.com is the premium online tutoring provider. Using materials developed by highly qualified educators and leading content developers, a team of top-notch software experts, and a group of passionate educators, eAgeTutor works to ensure the success and satisfaction of all of its students.

Contact us today to learn more about our guaranteed results and discuss how we can help make the dreams of the student in your life come true!

## Reference Links :

- http://en.wikipedia.org/wiki/Line_(geometry)
- http://en.wikipedia.org/wiki/Line_segment
- http://en.wikipedia.org/wiki/Infinity
- http://en.wikipedia.org/wiki/Parallel_(geometry)
- http://en.wikipedia.org/wiki/Geometry
- http://en.wikipedia.org/wiki/Angle


## Category:ROOT

Joomla SEF URLs by Artio

