

Enrichment



Lesson: complimentary and supplementary angles

Sixth Grade Objective: 2.01 Estimate and measure length, perimeter, area, angles, weight and mass of two- and three dimensions figures, using appropriate tools.

Vocabulary:

Right angles: angles that are 90°

Complementary Angles: two angles whose measures add to 90°

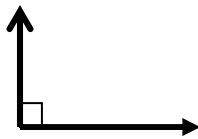
Supplementary Angles: two angles whose measures add to 180°

Lesson

First, let us review the basics of complimentary and supplementary angles:

An angle is formed by two rays which have a common vertex. In other words when two lines meet or intersect, or cross, an angle is formed.

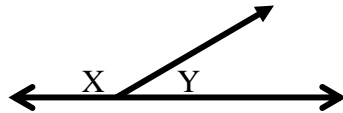
If the angel measures 90° it is a right angle.



If the angle measures 180 it is a straight line.

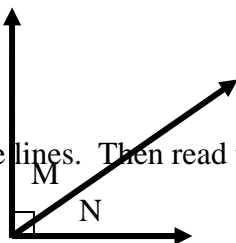


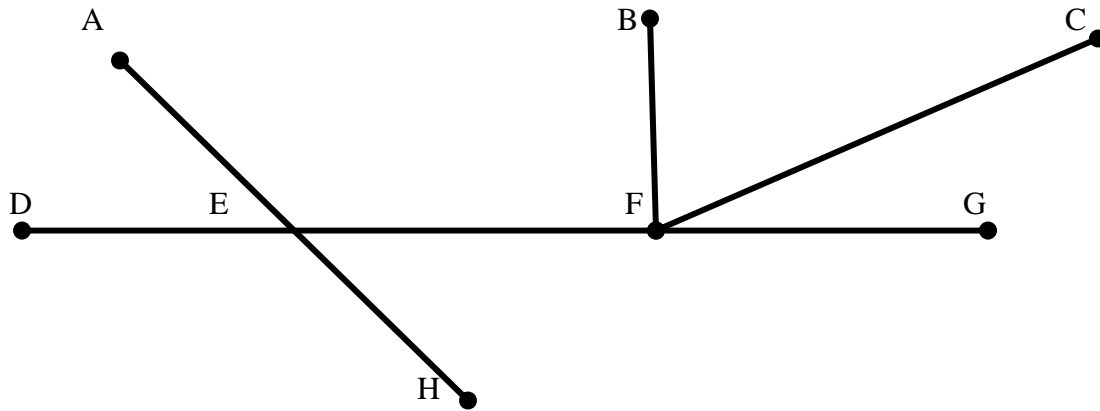
Two angles are supplementary if their sum is 180° . In this figure, $\angle X$ and $\angle Y$ are supplementary angles. The measure of $\angle X=150^\circ$ and the measure of $\angle Y= 30^\circ$. If two angles have a common vertex and their sides form a straight line, they are supplementary because a straight line has a measure of 180° .



Two angles are complementary if their sum is 90° . In this figure, $\angle M$ and $\angle N$ are complimentary. The measure of $\angle M$ is 40° and the measure of $\angle N$ is 50° .

Look at the lines. Then read the problems. Use the figure to find the measure of the angle.





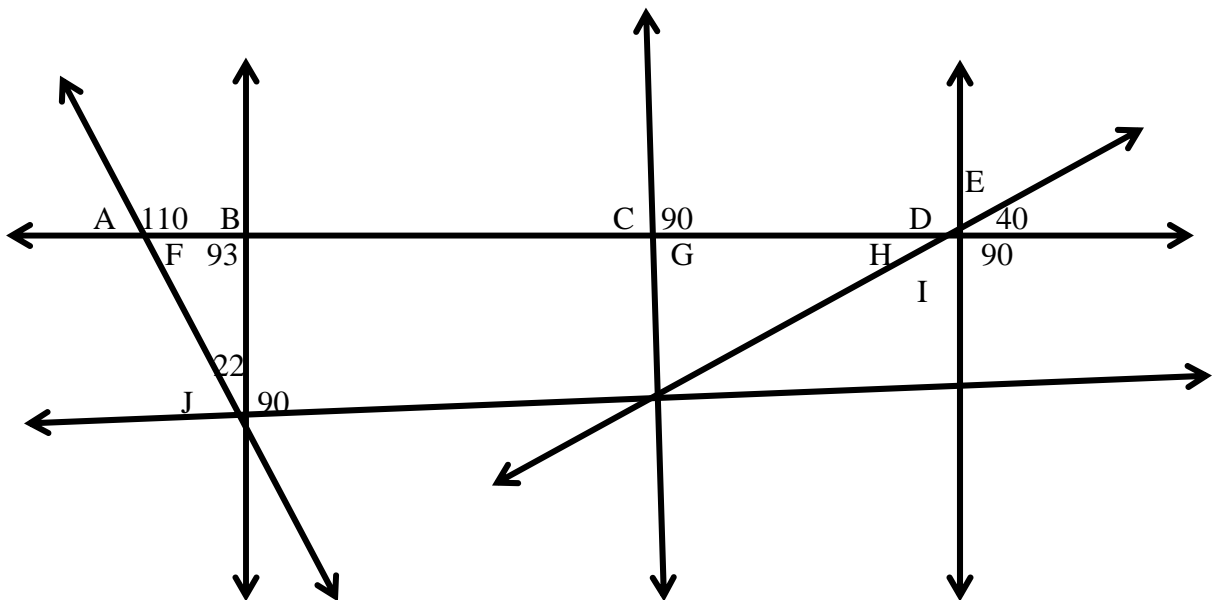
1. If $\angle DEH = 120$, how many degrees is $\angle AED$? _____
2. If $\angle BFC = 50$, how many degrees is $\angle CFG$? _____
3. If $\angle DFB = 90$, how many degrees is $\angle GFB$? _____

Check your answers

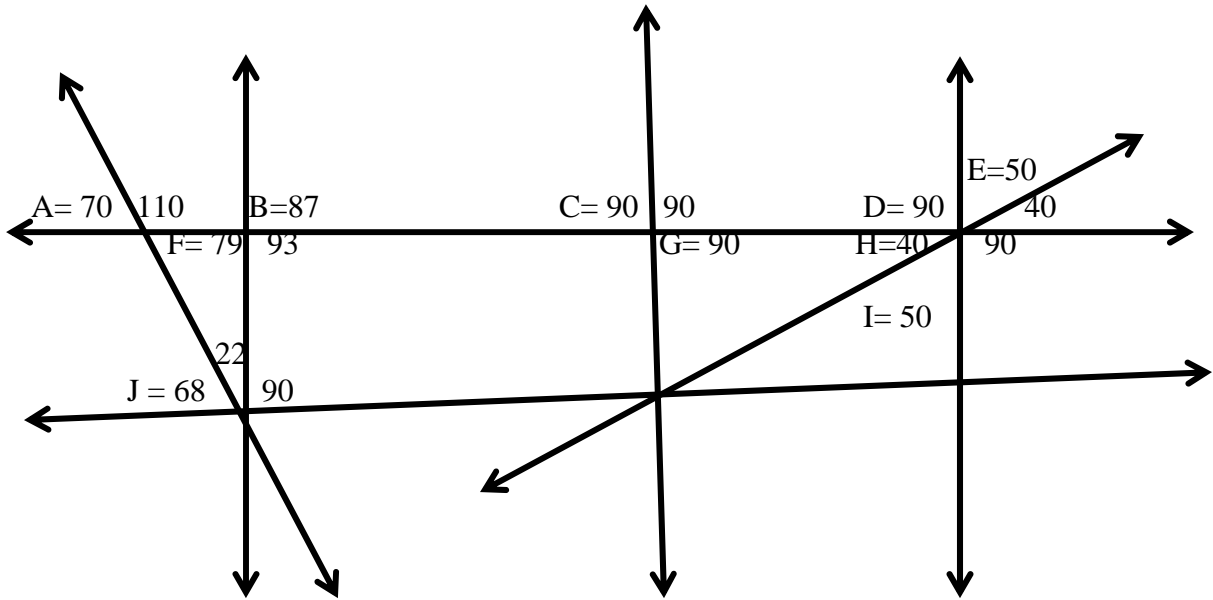
1. $\angle AED = 60$
2. $\angle CFG = 40$
3. $\angle GFB = 90$

Quiz Yourself

Find the degrees of the lettered angles



Check your answer



$$\angle A = 70$$

$$\angle B = 87$$

$$\angle C = 90$$

$$\angle D = 90$$

$$\angle E = 50$$

$$\angle F = 79$$

$$\angle G = 90$$

$$\angle H = 40$$

$$\angle I = 50$$

$$\angle J = 68$$