



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°

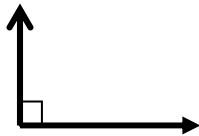
Complementary Angles: two angles whose measures add to 90°

Supplementary Angles: two angles whose measures add to 180°

Lesson

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.

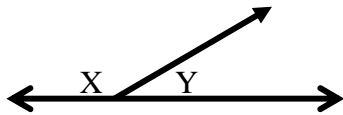
If the angle measures 90° it is a right angle.



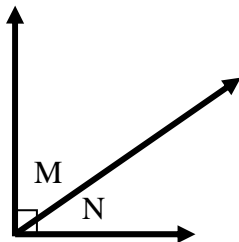
If the angle measures 180° it is a straight line.



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° .

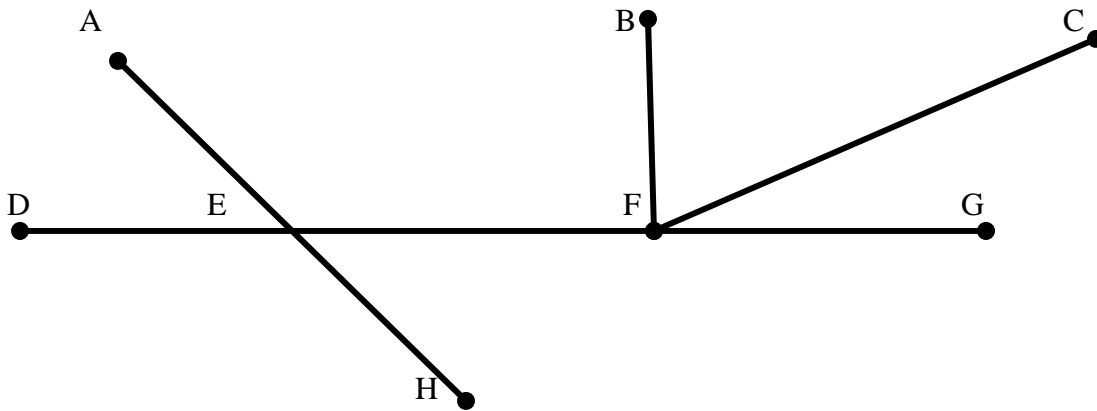


Two angles are **complementary** if their sum is 90° . In this figure, $\angle M$ and $\angle N$ are complimentary. The measure of $\angle M$ is 40° and the measure of $\angle N$ is 50° .



Try these on your own!

Look at the lines. Identify if the each pair of angles are supplementary or complementary angles.



Example: $\angle AED$ and $\angle AEF$
Supplementary

1. $\angle DEH$ and $\angle HEF$

2. $\angle BFC$ and $\angle CFG$

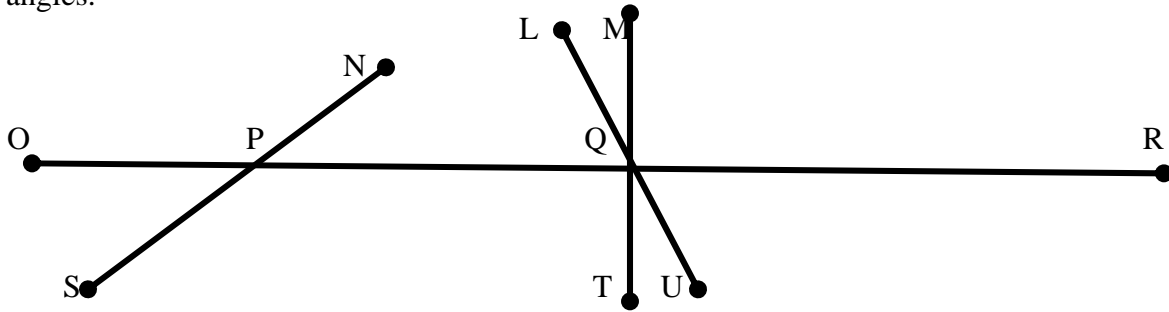
3. $\angle DEA$ and $\angle AEF$

Check your answers

1. Supplementary
2. Complimentary
3. Supplementary

Quiz Yourself

Look at the lines. Identify if the each pair of angles are supplementary or complementary angles.



1. $\angle OPN$ and $\angle NPQ$

2. $\angle LQM$ and $\angle MQU$

3. $\angle RQU$ and $\angle UQT$

Check Your Answers

1. Supplementary
2. Supplementary
3. Complementary