

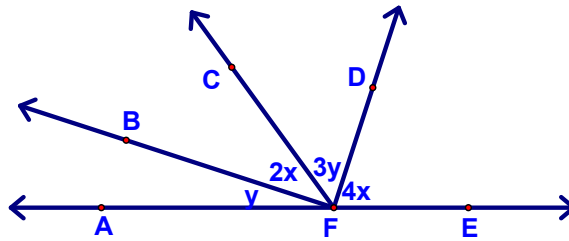


Complementary & Supplementary Angles - Lesson 2-2

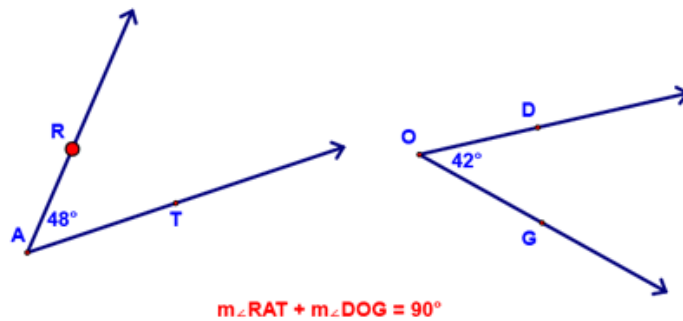
Here is the warmup..give it a shot!

Given: Diagram as shown
 $\overline{BF} \perp \overline{DF}$

Find: $m\angle DFE$



Today, we will start by defining *complementary angles*:



A pair of *complementary angles* is two angles whose measures have the sum of 90° . Each angle is called the *complement* of the other.

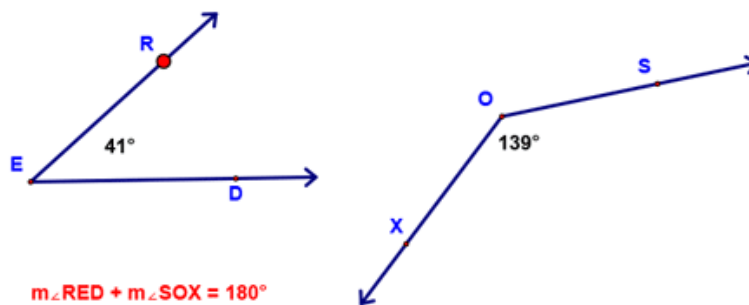
Another common use of this definition in proofs is worded as follows:

If the sum of the measures of two angles is 90° , then they are complementary.

or, conversely,

If two angles are complementary, then their measures sum to 90° .

And *supplementary angles*:



A pair of *supplementary angles* is two angles whose measures have the sum of 180° . Each angle is called the *supplement* of the other.

Another common use of this definition in proofs is worded as follows:

If the sum of the measures of two angles is 180° , then they are supplementary

or, conversely,

If two angles are supplementary then their measures sum to 180° .

Now, let's try an example of combining these concepts to solve an example problem:

The measure of the supplement of an angle is 60 less than 3 times the measure of the complement of the angle. Find the measure of the complement.