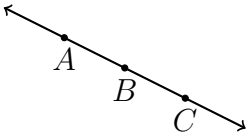
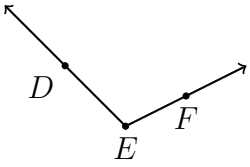
2.6 Classwork Angle terminology

1. Definition: *Opposite rays* are collinear rays with a common end point.

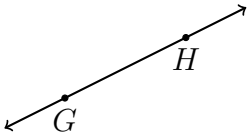
   (a) $\overrightarrow{BA}$ and $\overrightarrow{BC}$ are opposite rays



   (b) These rays do not make a straight line.



   (c) The rays $\overrightarrow{GH}$ and $\overrightarrow{HG}$ do not share a common end point.



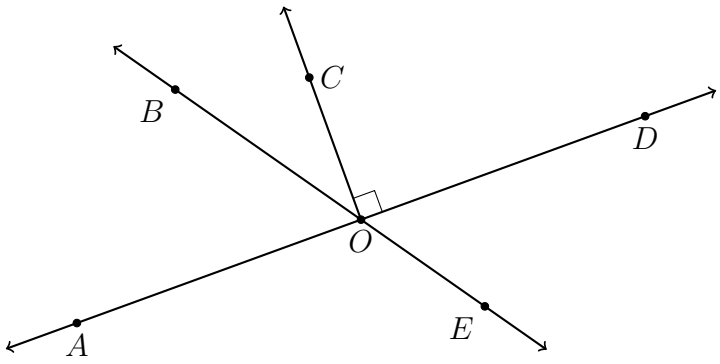
2. Type your answers. Use the less than key ("<") to represent an angle, followed by three letters.

   (a) Name a right angle: _____

   (b) Name the ray opposite to $\overrightarrow{OE}$: _____

   (c) What is the measure of $\angle AOC$? _____

   (d) Name the angle vertical to $\angle AOB$: _____

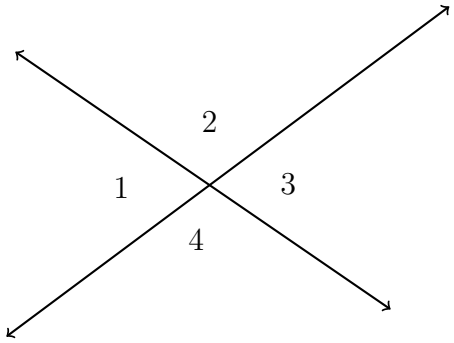


3. As shown below, two lines intersect making four angles: $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$.

   Given $m\angle 1 = 75°$.

   (a) Find $m\angle 3$

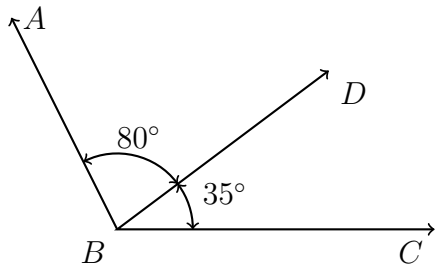
   (b) Find $m\angle 2$



4. Apply the Angle Addition postulate. Write and equation to support your work.

Given $m\angle ABD = 80°$ and $m\angle DBC = 35°$.

Find $m\angle ABC$.

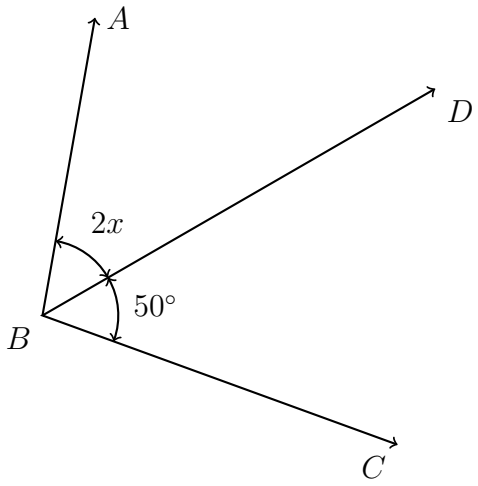


5. Given the angle measures and situation shown, write an equation and solve for x.

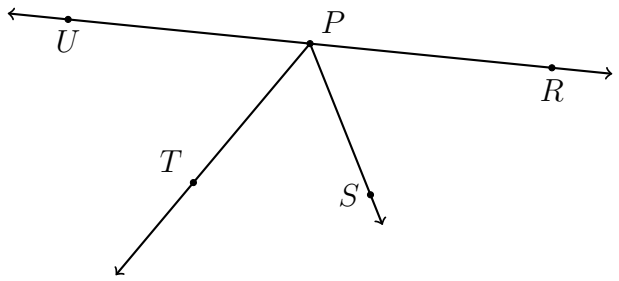
$m\angle ABD = 2x$

$m\angle DBC = 50°$

$m\angle ABC = 110°$.



6. Given the situation in the diagram, answer each question. Circle True or False.



(a) True or False: $\overrightarrow{RP}$ and $\overrightarrow{UP}$ are opposite rays.

(b) True or False: $\angle TPR$ is supplementary to $\angle TPU$.

(c) True or False: $\angle RPS$ and $\angle TPS$ are complementary angles.

(d) True or False: $\angle RPS$ and $\angle TPU$ are vertical angles.

7. Given $\overline{DEFG}$, $DE = 1\frac{2}{5}$, $EF = 2\frac{3}{10}$, and $FG = \frac{4}{5}$. (diagram not to scale)

   Find DG, expressed as a fraction, not a decimal.