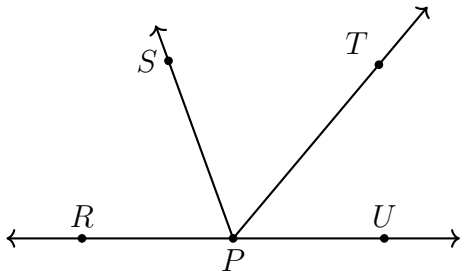
**2.6 PreTest: Angle measures**

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

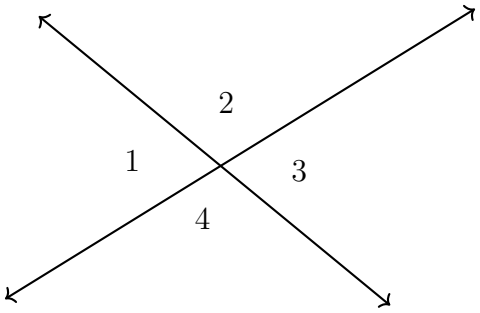
   (a) T or F: $\overrightarrow{PR}$ and $\overrightarrow{PU}$ are opposite rays.

   (b) T or F: $\angle TPR$ is an obtuse angle.

   (c) T or F: $\angle RPS$ and $\angle TPU$ are adjacent angles.




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




   (a) Given that $\text{m}\angle 1 = 75°$, find $\text{m}\angle 2 =$ _____

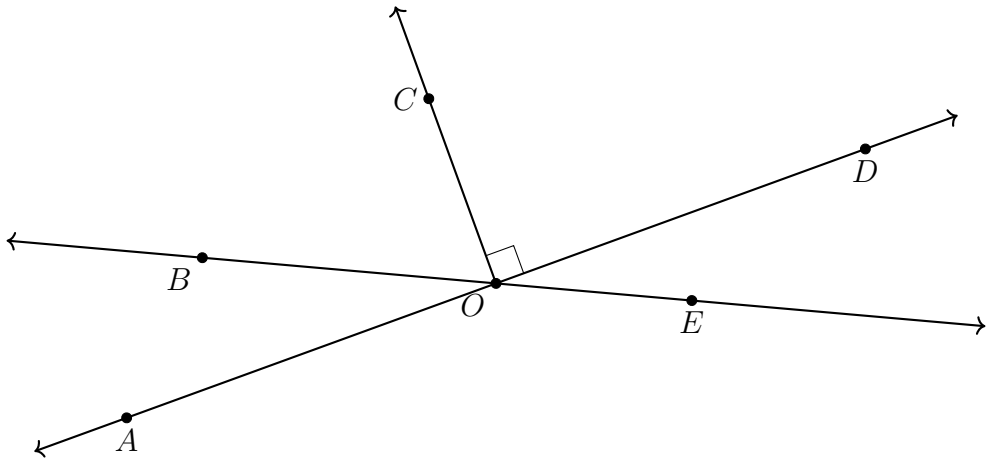
   (b) Find $\text{m}\angle 3 =$ _____

   (c) True or false, $\angle 1$ and $\angle 4$ are supplementary angles. _____

3. (a) Given, the diagram below. Name a right angle: _____

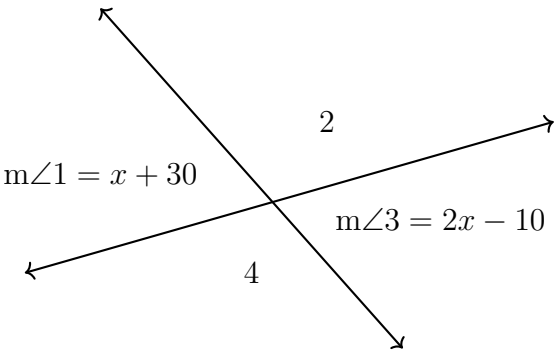
   (b) Name the angle that is opposite to $\angle AOB$: _____

   (c) Name an angle that is supplementary to $\angle COB$: _____

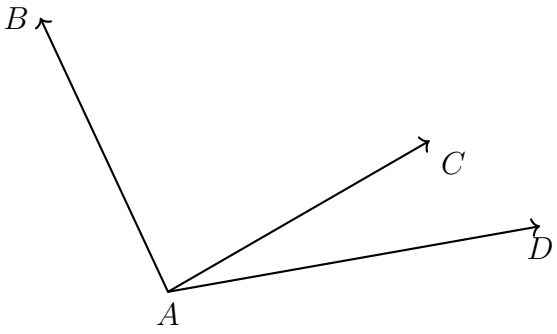



*For full credit on these three problems, start with an equation and check your solution.*

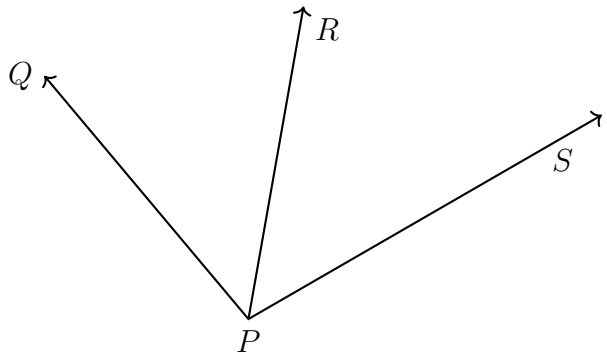
4. As shown below, two lines intersect making four angles: $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$. Given that $\text{m}\angle 1 = x + 30$ and $\text{m}\angle 3 = 2x - 10$, find $\text{m}\angle 1$.




5. Given $\text{m}\angle BAC = 5x - 5$ and $\text{m}\angle DAC = x$, $\text{m}\angle BAD = 115°$. Find $\text{m}\angle BAC$.

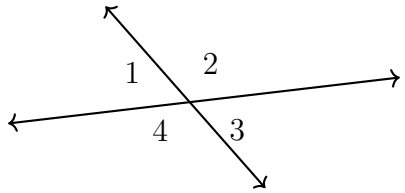



6. An angle bisector is shown below, with $\overrightarrow{PR}$ bisecting $\angle QPS$. Given $\text{m}\angle QPR = 4x + 2$ and $\text{m}\angle QPS = 10x - 20$, find $\text{m}\angle QPS$.

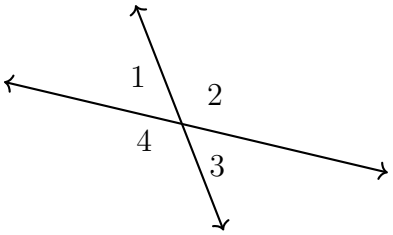

R
Q
S
P

**Do Not Solve!**
**Model the situation with an equation. Circle where it states what to find.**

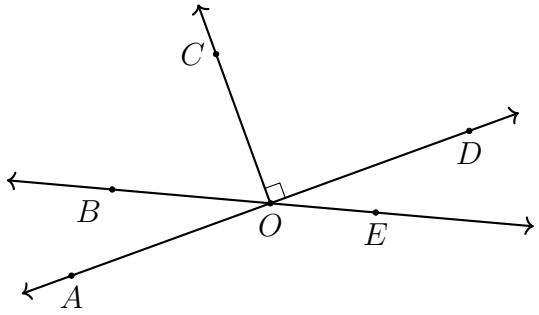
7. Two lines intersect making four angles: $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$. Given that $\text{m}\angle 1 = 4x + 30$ and $\text{m}\angle 2 = 8x - 10$, find $x$.




8. Given that $\text{m}\angle 2 = 5x + 30$ and $\text{m}\angle 4 = 7x - 10$ as shown in the diagram, find $\text{m}\angle 2$.




9. In the diagram below $\angle AOB = 30°$ and $\angle COB = 5x + 10$. Find $x$.




10. In the diagram below $\angle DOE = 60°$ and $\angle DOB = 13x - 10$. Find $x$.