

Name: _____

2.7 Test: Angle measures

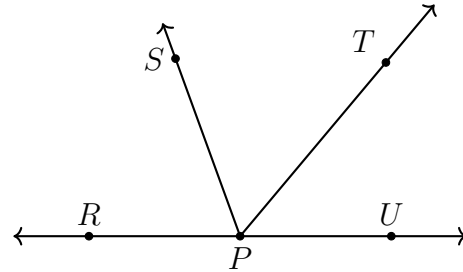
Diagrams are not necessarily drawn to scale unless otherwise stated.

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

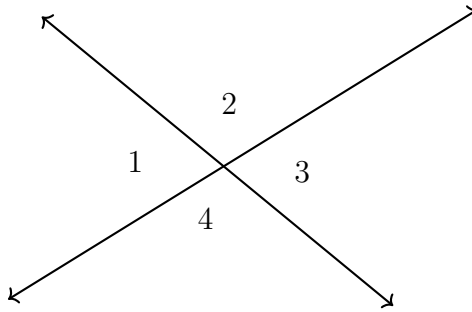
(a) T or F: $\angle RPT$ and $\angle SPU$ are adjacent angles.

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

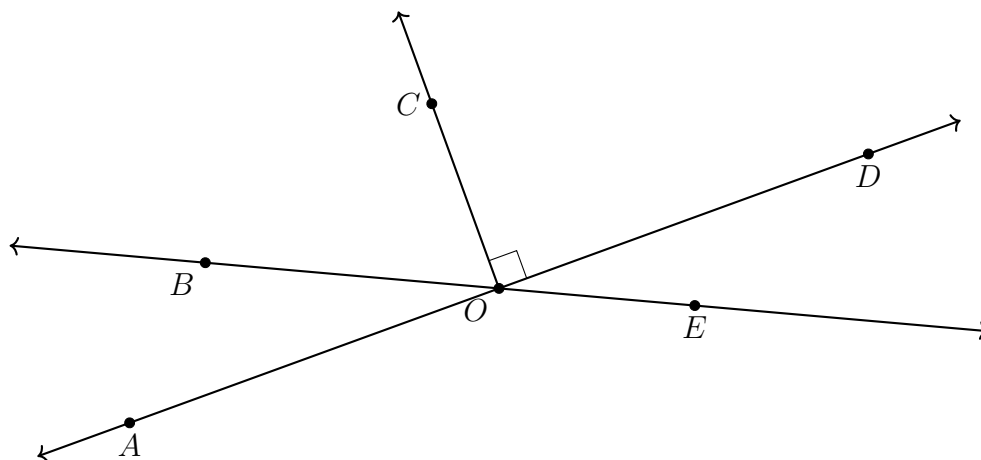
(c) T or F: \overrightarrow{PS} and \overrightarrow{PT} are opposite rays.



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

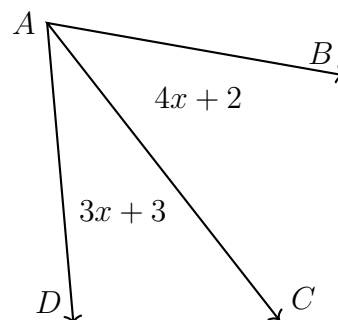


- (a) Given that $m\angle 1 = 65^\circ$, find $m\angle 3 =$ _____
- (b) Find $m\angle 2 =$ _____
- (c) True or false, $\angle 1$ and $\angle 4$ are complementary angles. _____
3. (a) Given, the diagram below. Name a right angle: _____
- (b) Name an angle that is complementary to $\angle AOB$: _____
- (c) Name the angle that is opposite to $\angle DOE$: _____

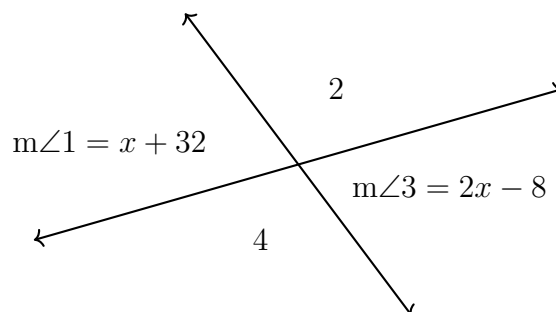


For full credit on these three problems, start with an equation and check your solution.

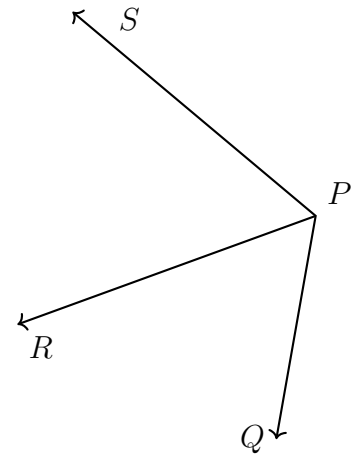
4. Given $m\angle BAC = 4x + 2$ and $m\angle CAD = 3x + 3$, $m\angle BAD = 75^\circ$. Find $m\angle BAC$.



5. As shown below, two lines intersect making four angles: $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$. Given that $m\angle 1 = x + 32$ and $m\angle 3 = 2x - 8$, find $m\angle 1$.



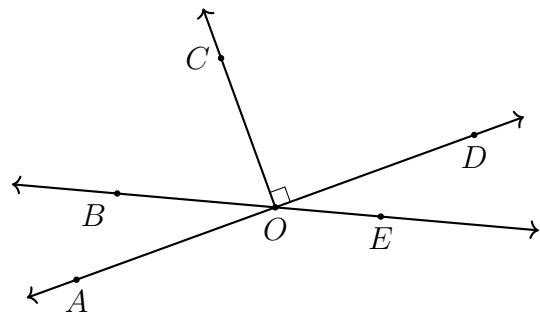
6. An angle bisector is shown below, with \overrightarrow{PR} bisecting $\angle QPS$. Given $m\angle QPR = 5x - 8$ and $m\angle RPS = 3x + 20$, find $m\angle QPS$.



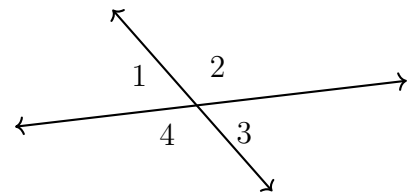
Do Not Solve!

Model the situation with an equation. Circle where it states what to find.

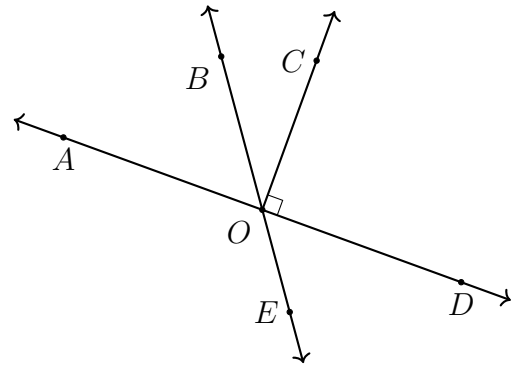
7. In the diagram below $\angle AOB = 2x$ and $\angle COB = 5x + 20$. Find $m\angle AOB$.



8. Two lines intersect making four angles: $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$. Given that $m\angle 1 = 6x + 28$ and $m\angle 3 = 8x + 12$. Find $m\angle 1$.



9. In the diagram below $\angle AOB = 10x + 3$ and $\angle DOE = 63^\circ$. Find x .



10. Given that $m\angle 2 = 10x - 20$ and $m\angle 3 = 3x + 5$ as shown in the diagram, find $m\angle 2$.

