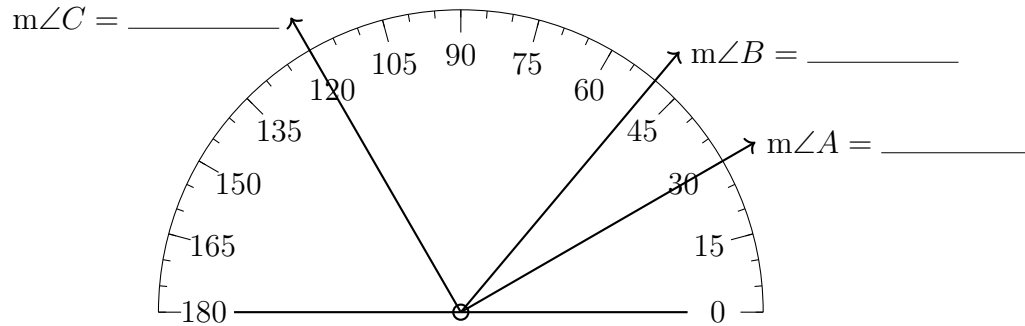


Name: \_\_\_\_\_

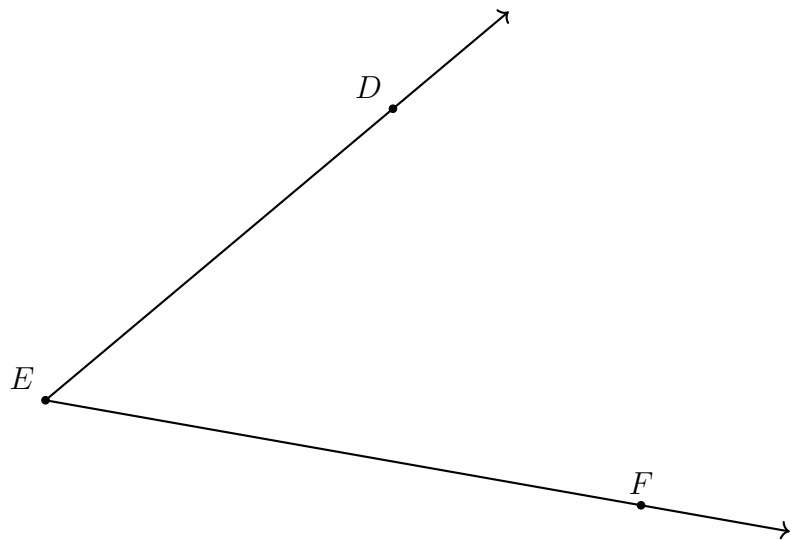
## 2.7 Test: Angle measures

*Diagrams are not necessarily drawn to scale unless otherwise stated.*

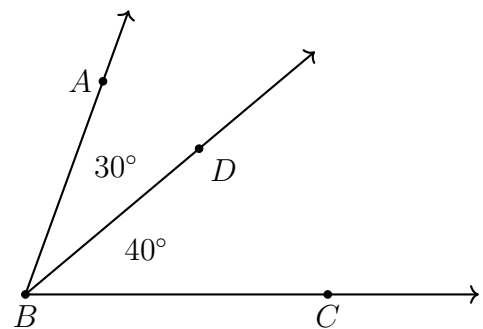
1. Use the image of the protractor to measure each of the angles.



2. Find the measure of the angle in degrees with a protractor.



3. Given  $m\angle ABD = 30^\circ$ ,  $m\angle DBC = 40^\circ$ . Calculate  $m\angle ABC$ .

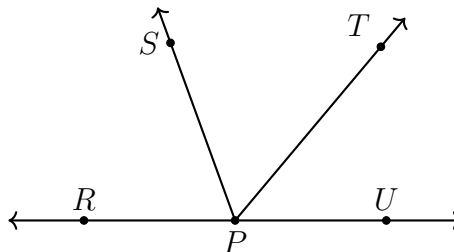


4. Given the situation in the diagram, answer each question. Circle True or False.

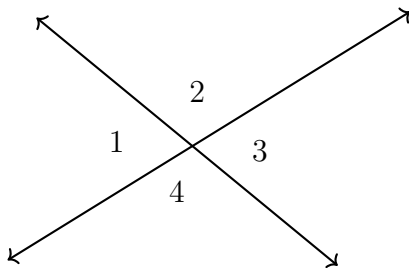
(a) T or F:  $\angle RPT$  and  $\angle SPU$  are adjacent angles.

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

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



5. 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  $m\angle 3 =$  \_\_\_\_\_

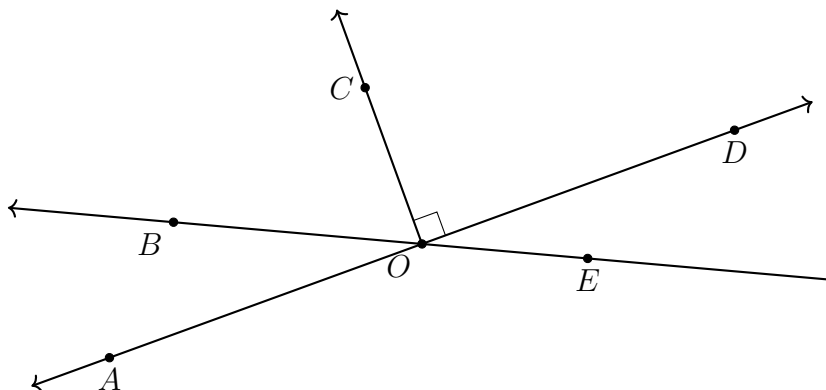
(b)  $\angle 2 \cong$  \_\_\_\_\_

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

6. (a) Given, the diagram below. Name a right angle: \_\_\_\_\_

(b) Name an angle that is complementary to  $\angle AOB$ : \_\_\_\_\_

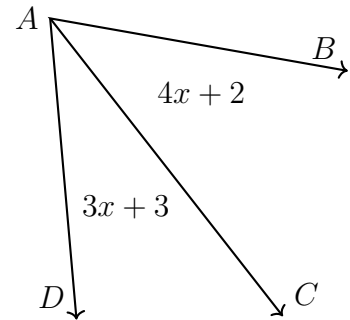
(c) Name the angle that is opposite to  $\angle DOE$ : \_\_\_\_\_



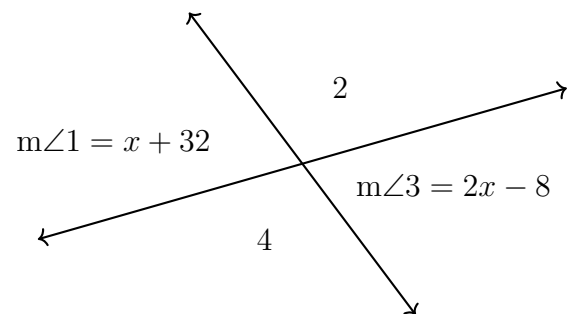
Name:

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

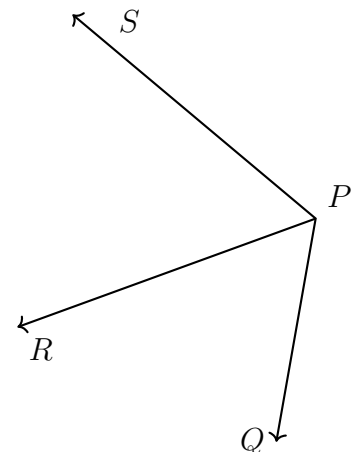
7. Given  $m\angle BAC = 4x + 2$  and  $m\angle CAD = 3x + 3$ ,  $m\angle BAD = 75^\circ$ . Find  $m\angle BAC$ .



8. 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  $m\angle 1$ .



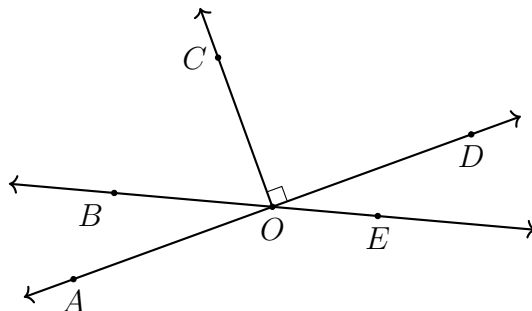
9. An angle bisector is shown below, with  $\overrightarrow{PR}$  bisecting  $\angle QPS$ . Given  $m\angle QPR = 5x - 8$  and  $m\angle RPS = 3x + 20$ , find  $m\angle QPS$ .



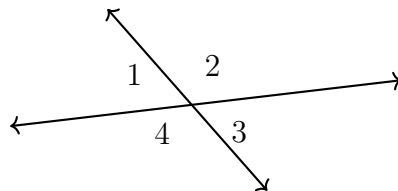
**Do Not Solve!**

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

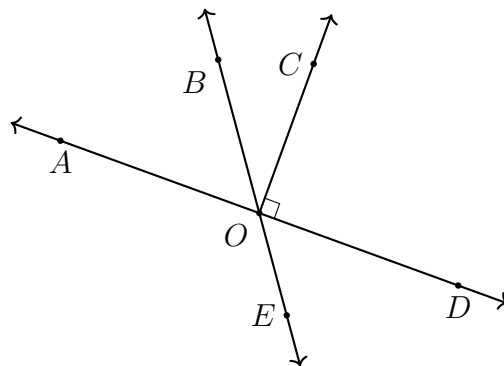
10. In the diagram below  $\angle AOB = 2x$  and  $\angle COB = 5x + 20$ . Find  $m\angle AOB$ .



11. 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  $m\angle 1$ .



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



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

