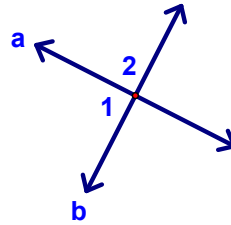


6.

Given:  $a \perp b$

Prove:  $\angle 1 \cong \angle 2$

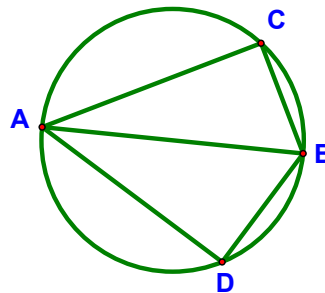


Statements	Reasons

7.

Given:  $m\angle ACB = 90^\circ$   
 $\overline{AD} \perp \overline{BD}$

Prove:  $\angle C \cong \angle D$

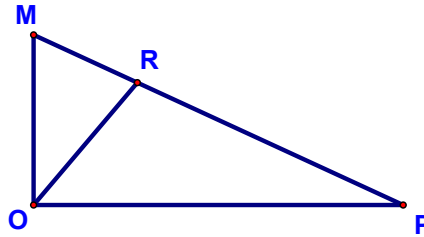


Statements	Reasons

8.

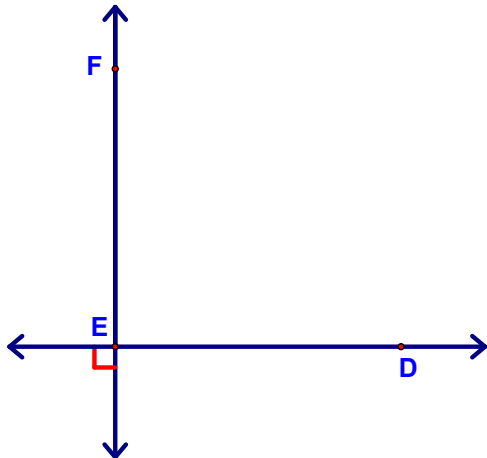
Given:  $\angle MOR = (3x + 7)^\circ$   
 $\angle ROP = (4x - 1)^\circ$   
 $\overline{MO} \perp \overline{OP}$

Which  $\angle$  is larger,  $\angle MOR$  or  $\angle ROP$ ?



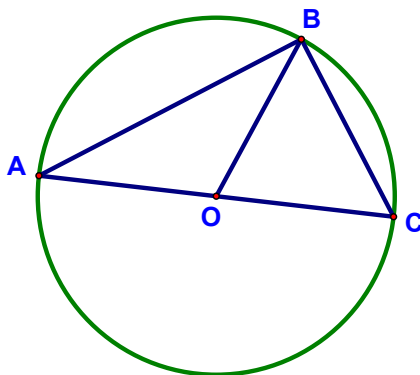
12.

$\overleftrightarrow{DE} \perp \overleftrightarrow{EF}$ . The resulting  $\angle$  is trisected, then one of the new  $\angle$ s is bisected, and then one of the resulting  $\angle$ s is trisected. How large is the smallest  $\angle$ ?



14.

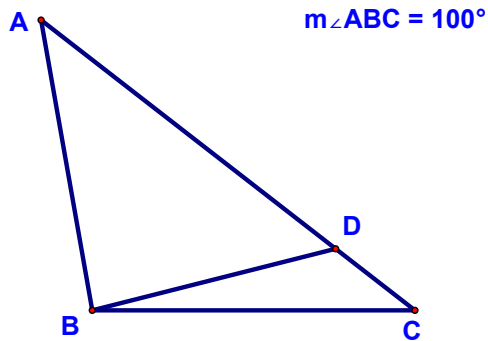
- Given:  $\overline{AB} \perp \overline{BC}$   
 $m\angle ABO = (2x + y)^\circ$   
 $m\angle OBC = (6x + 8)^\circ$   
 $m\angle AOB = (23y + 90)^\circ$   
 $m\angle BOC = (4x + 4)^\circ$



Find  $m\angle ABO$

15.

If a ray,  $\overrightarrow{BD}$ , is chosen a random between the sides of  $\angle ABC$ , where  $m\angle ABC = 100^\circ$ ,



a. What is the probability that  $\angle ABD$  is acute?

b. What is the probability that  $\angle DBC$  is acute?

c. What is the probability that both  $\angle ABD$  and  $\angle DBC$  are acute?