1.

Change to degrees and minutes.

a. $61\frac{2}{3}°$

b. $71.7°$

2.

Change to fractional degrees.

a. $132°30'$

b. $19°45'$

4.

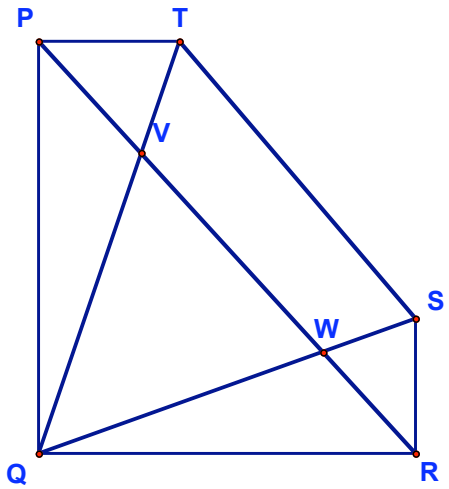
a. $\overrightarrow{QV} \cap \overleftrightarrow{TS}$ =

b. $\overline{WP} \cap \overline{VR}$ =

c. $\overrightarrow{WP} \cup \overrightarrow{VR}$ =

d. $\overrightarrow{SQ} \cup \overrightarrow{SR}$ =

e. How many angles have vertex Q?



5.

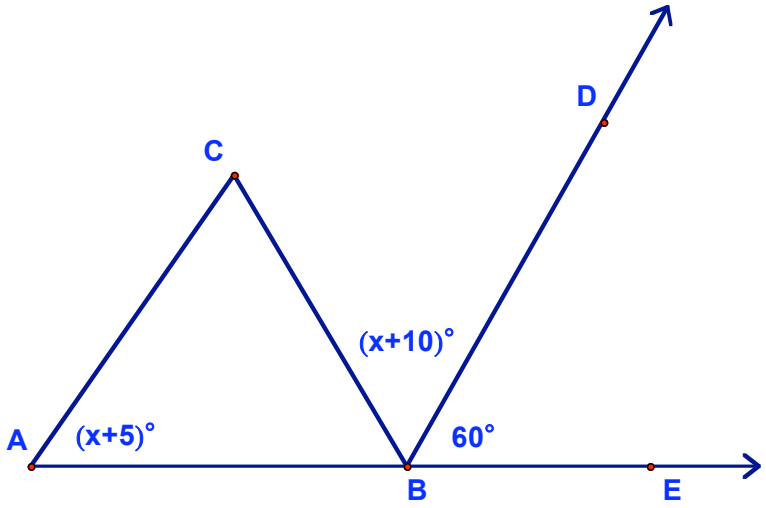
Evaluate:

a. 49°32'55" + 37°27'15"

b. 123°15' - 40°26'

8.

If ∠CBD ≅ ∠DBE, find m∠A



9.

Find the measure of the angle formed by the hands of a clock at the following times:

a. 3:00

b. 4:30

c. 7:20

d. 1:45

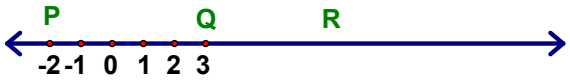
10.

Using the number line shown:

a. Find PQ

b. If R's coordinate is 7, why is $\overline{PQ}$ not ≅ $\overline{QR}$?

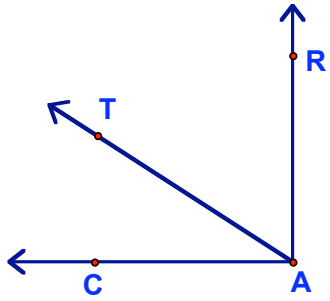
c. What must the coordinate of R be in order for Q to be the midpoint of $\overline{PR}$?



11.

∠CAR is a right angle and m∠CAT = 37°66'10"

Find m∠RAT



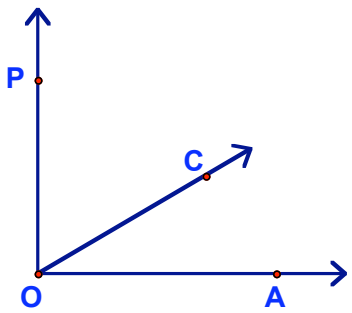
15.

Given: **∠1 ≅ ∠2**
m∠1 = x + 14
m∠2 = y - 3

Find y in terms of x

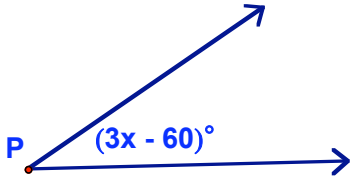
16.

If ∠POA is a right angle and ∠POC is 3 times as large as ∠COA, find m∠POC.



17.

Using the diagram shown and the fact that ∠P is acute,



a. What are the restrictions on m∠P?

b. What are the restrictions on x?

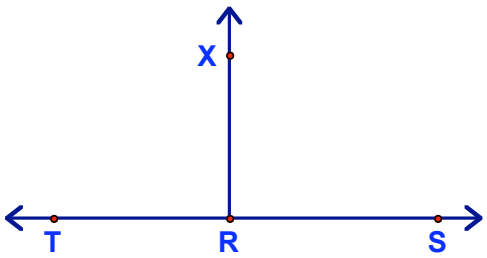
20.

Change $15\frac{2}{9}°$ to degrees, minutes, and seconds

21.

Given: **∠TRS is a straight angle**
∠TRX is a right angle
m∠TRS = 2x + 5y
m∠XRS = 3x + 3y

Solve for x and y.



23.

Change 72°22'30" to fractional degrees.