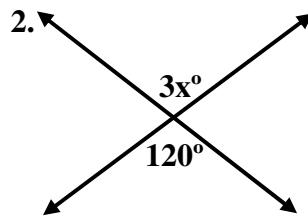
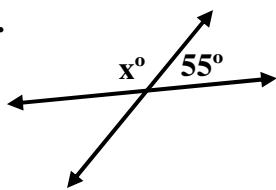


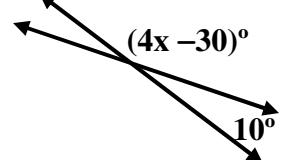
Geometry
ASSIGNMENT 1.10

Find the value of the variable(s).

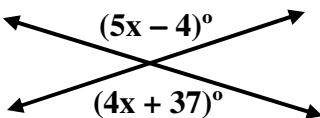
1.



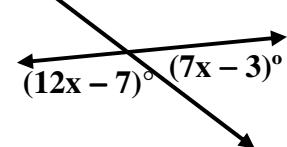
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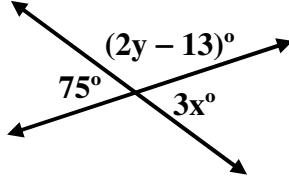
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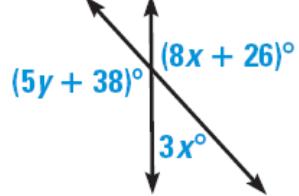
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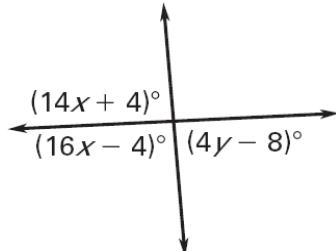
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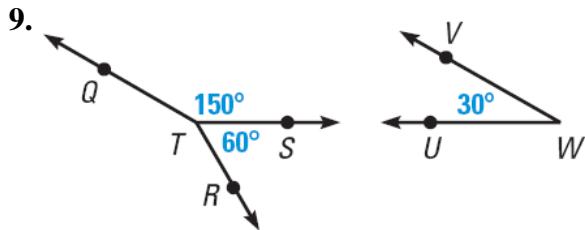
7.



8.



Name a pair of complementary angles and a pair of supplementary angles.



- 10.** $\angle A$ and $\angle B$ are supplementary angles.
Given $m\angle A = 110^\circ$, find $m\angle B$.

Complementary Angles: _____

Supplementary Angles: _____

$\angle A$ and $\angle B$ are complementary and

$\angle B$ and $\angle C$ are supplementary.

- 11.** If $m\angle A = 30^\circ$, then

$$m\angle B = \underline{\hspace{2cm}} \text{ and } m\angle C = \underline{\hspace{2cm}}$$

- 12.** $\angle C$ is a complement of $\angle D$. Find $m\angle C$.

$$m\angle C = (3x + 2)^\circ$$

$$m\angle D = (x - 4)^\circ$$

Use the figure at the right to answer true or false for the following questions.

- 13.** $\angle 1$ and $\angle 3$ vertical angles.

- 14.** $\angle 5$ and $\angle 3$ vertical angles.

- 15.** $\angle 5$ and $\angle 4$ vertical angles.

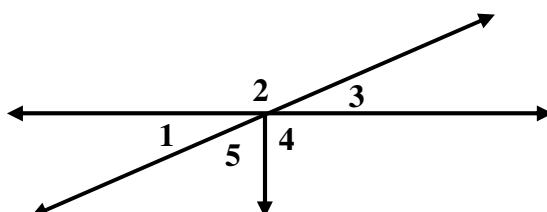
- 16.** $\angle 1$ and $\angle 2$ vertical angles.

- 17.** $\angle 1$ and $\angle 2$ a linear pair.

- 18.** $\angle 2$ and $\angle 3$ a linear pair.

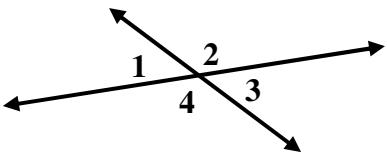
- 19.** $\angle 1$ and $\angle 4$ a linear pair.

- 20.** $\angle 1$ and $\angle 5$ a linear pair.

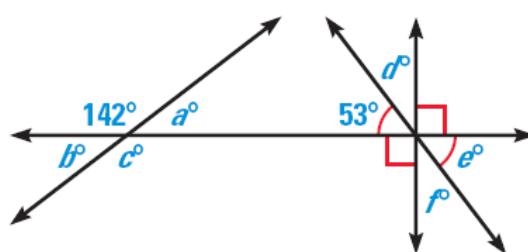


- 21.** Given $m\angle 1 = 50^\circ$, determine $m\angle 2$, $m\angle 3$,

and $m\angle 4$.



- 22.** Determine the value of a , b , c , d , e , and f .



23. M is the midpoint \overline{AB} . Find AM.

$$AM = 6x + 7$$

$$MB = 4x + 5$$

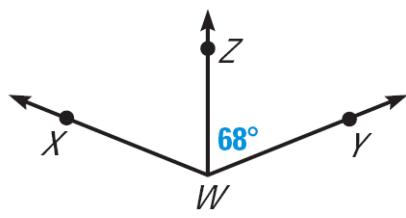
24. Y is between points X and Z. Find XZ.

$$XY = 2x$$

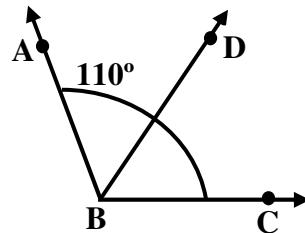
$$YZ = 6$$

$$XZ = 3x - 8$$

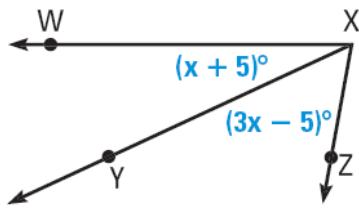
25. \overrightarrow{WZ} bisects $\angle XWY$. Find the two angles measures not given in the diagram.



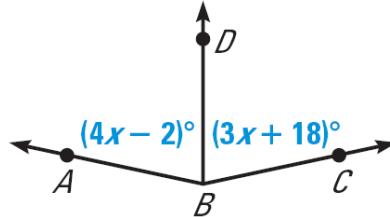
26. \overrightarrow{BD} bisects $\angle ABC$. Find the two angles measures not given in the diagram.



27. Given $m\angle WXZ = 80^\circ$, find $m\angle YXZ$.



28. \overrightarrow{BD} bisects $\angle ABC$. Find $m\angle ABC$.



29. Find the midpoint of \overline{CD} given its endpoints.

$$C(-6, 4) \quad D(5, -2)$$

30. Given the midpoint $M\left(-3, \frac{5}{2}\right)$ and an endpoint $F(-1, 6)$ of \overline{FG} , find the other endpoint.

- 31.** Find the length of segment \overline{XY} given the coordinates of its endpoints.

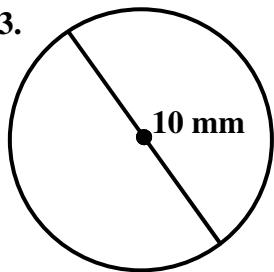
$$X(-5, -3) \quad Y(-2, -7)$$

- 32.** Find the distance between the endpoints of \overline{AB} .

$$A(2, 0) \quad B(8, -2)$$

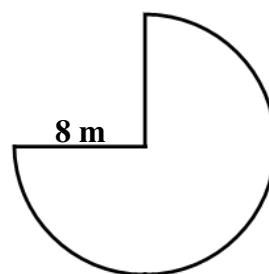
Find the circumference and area of the circle.
Leave answer in terms of π .

33.



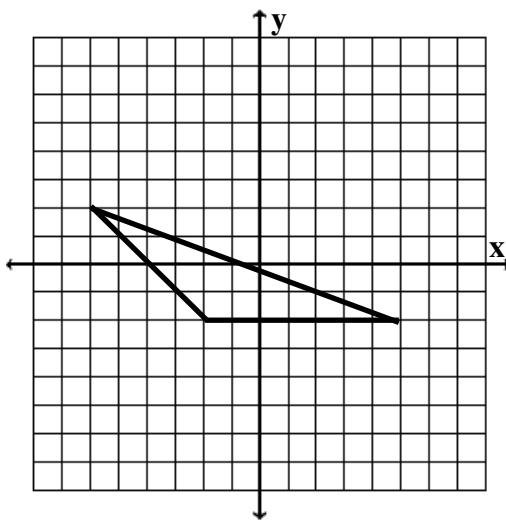
Find the area of the figure.
Leave answer in terms of π .

34.



Find the area of the figure on the coordinate plane.

35.



36. How many square inches are in one square foot?

Answer Key:

- 1) $x = 125$
- 2) $x = 40$
- 3) $x = 50$
- 4) $x = 41$
- 5) $x = 10$
- 6) $x = 25, y = 59$
- 7) $x = 14, y = 20$
- 8) $x = 6, y = 24$
- 9) $\angle RTS$ and $\angle W$, $\angle QTS$ and $\angle W$
- 10) $m\angle B = 70^\circ$
- 11) $m\angle B = 60^\circ$, $m\angle C = 120^\circ$
- 12) $m\angle C = 71^\circ$
- 13) True
- 14) False
- 15) False
- 16) False
- 17) True
- 18) True
- 19) False
- 20) False
- 21) $m\angle 2 = 130^\circ$, $m\angle 3 = 50^\circ$, $m\angle 4 = 130^\circ$
- 22) $a = 38, b = 38, e = 142, d = 37, e = 53, f = 37$
- 23) $AM = 1$
- 24) $XZ = 34$
- 25) $m\angle XWZ = 68^\circ$, $m\angle XWY = 136^\circ$
- 26) $m\angle ABD = 55^\circ$, $m\angle CBD = 55^\circ$
- 27) $m\angle YXZ = 55^\circ$
- 28) $m\angle ABC = 156^\circ$
- 29) $M\left(-\frac{1}{2}, 1\right)$
- 30) $G(-5, -1)$
- 31) $XY = 5$
- 32) $AB = 2\sqrt{10}$
- 33) $C = 10\pi \text{ mm}$, $A = 25\pi \text{ mm}^2$
- 34) $A = 48\pi \text{ m}^2$
- 35) $A = 14 \text{ units}^2$
- 36) 144 in.^2