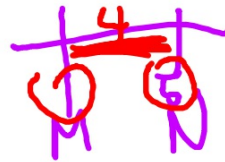


$$3x + 5 = 9x - 3$$

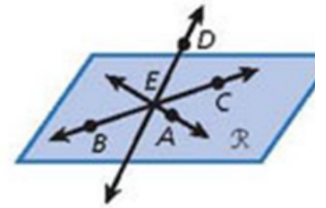
$$8 = 6x$$



Show your work on a separate piece of paper.

$$\frac{4}{3} \cdot \frac{3}{2} = x$$

1. Draw and label plane  $\mathcal{N}$  containing two lines that intersect at  $B$ .

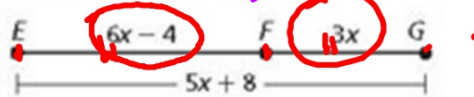


Use the figure to name each of the following.

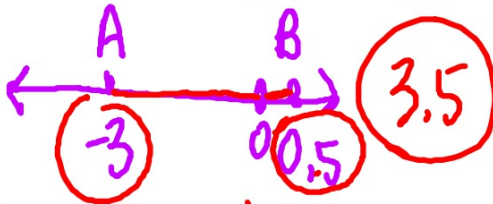
2. four noncoplanar points  $D, A, B, C$
3. line containing  $B$  and  $E$

4. The coordinate of  $A$  is  $-3$ , and the coordinate of  $B$  is  $0.5$ . Find  $AB$ .

5.  $E, F,$  and  $G$  represent mile markers along a straight highway. Find  $EF$ .



6.  $J$  is the midpoint of  $\overline{HK}$ . Find  $HJ, JK,$  and  $HK$ .



$$\begin{array}{r} -3 - 0.5 \\ \hline -3.5 \end{array}$$

$$0.5 - (-3)$$

$$3(4\frac{1}{3}) + 5$$

Classify each angle by its measure.

$$3x - 5 = 180 - x$$

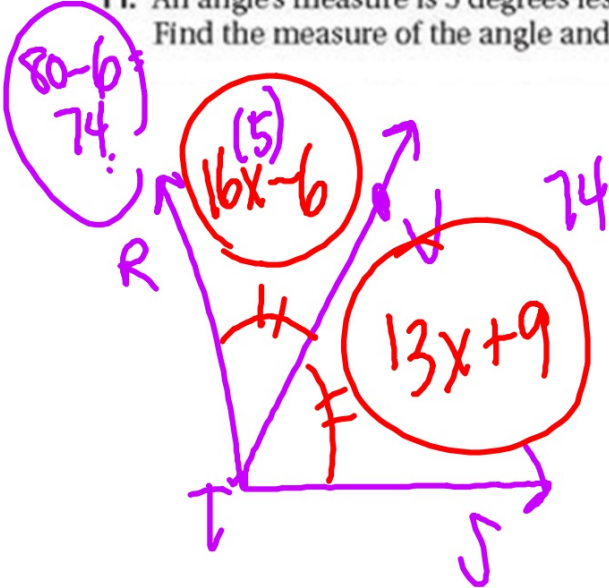
7.  $m\angle LMP = 70^\circ$

8.  $m\angle QMN = 90^\circ$

9.  $m\angle PMN = 125^\circ$

10.  $\overline{TV}$  bisects  $\angle RTS$ . If the  $m\angle RTV = (16x - 6)^\circ$  and  $m\angle VTS = (13x + 9)^\circ$ , what is the  $m\angle RTV$ ? #

11. An angle's measure is 5 degrees less than 3 times the measure of its supplement. Find the measure of the angle and its supplement.



$$16x - 6 = 13x + 9$$

$$3x = 15$$

$$x = 5$$

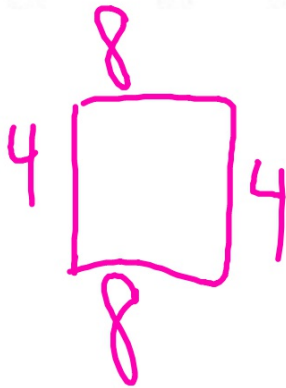
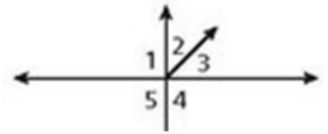
Tell whether the angles are only adjacent, adjacent and form a linear pair, or not adjacent.

12.  $\angle 2$  and  $\angle 3$

13.  $\angle 4$  and  $\angle 5$

14.  $\angle 1$  and  $\angle 4$

15. Find the perimeter and area of a rectangle with  $b = 8$  ft and  $h = 4$  ft.



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Find the circumference and area of each circle to the nearest tenth.

16.  $r = 15$  m

17.  $d = 25$  ft

18.  $d = 2.8$  cm

19. Find the midpoint of the segment with endpoints  $(-4, 6)$  and  $(3, 2)$ .

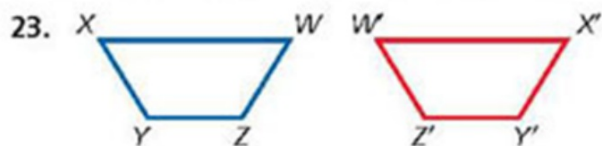
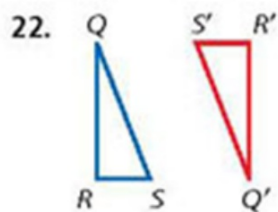
20.  $M$  is the midpoint of  $\overline{LN}$ .  $M$  has coordinates  $(-5, 1)$ , and  $L$  has coordinates  $(2, 4)$ . Find the coordinates of  $N$ .

21. Given  $A(-5, 1)$ ,  $B(-1, 3)$ ,  $C(1, 4)$ , and  $D(4, 1)$ , is  $\overline{AB} \cong \overline{CD}$ ? Explain.

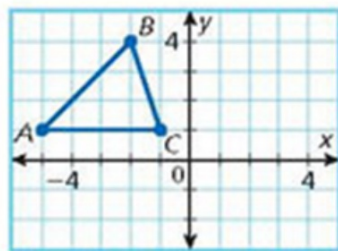
$$\frac{C}{2\pi} = \frac{2\pi R}{2\pi}$$

$$\frac{C}{2\pi} = R$$

Identify each transformation. Then use arrow notation to describe the transformation.



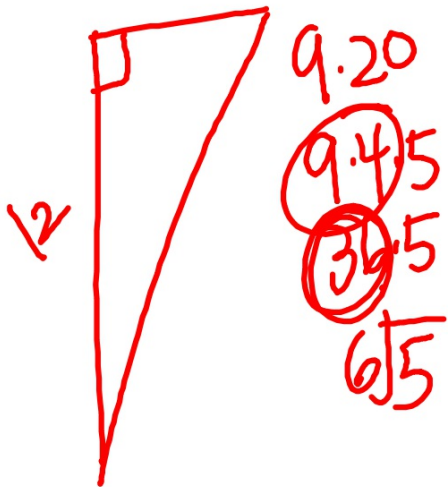
24. A designer used the translation  $(x, y) \rightarrow (x + 3, y - 3)$  to transform a triangular-shaped pin  $ABC$ . Find the coordinates and draw the image of  $\triangle ABC$ .



$$\sqrt{12^2 + 6^2} = c$$

$$\sqrt{144 + 36}$$

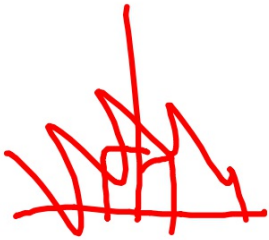
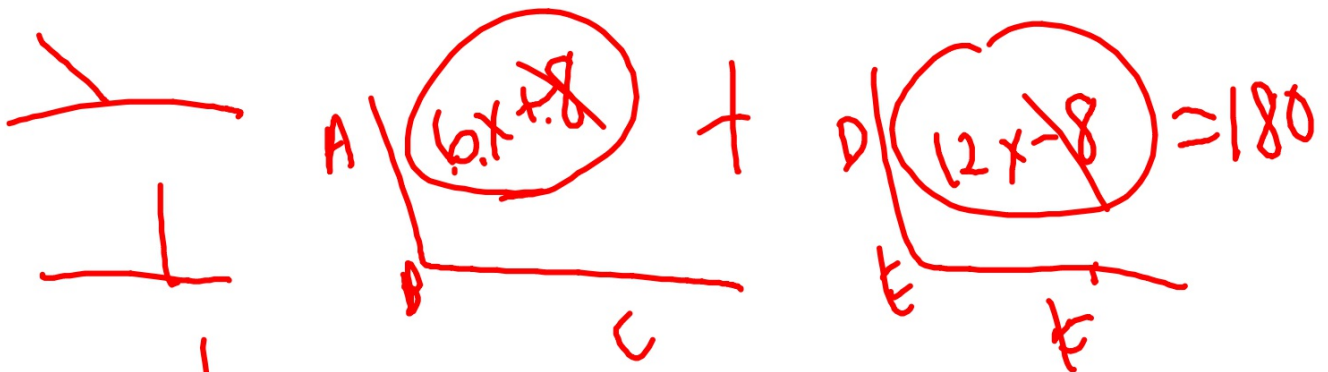
$$6 \sqrt{180} = c$$



$$PQ \sqrt{( )^2 + ( )^2}$$

$$QR \sqrt{ \quad \quad \quad }$$

$$PR \sqrt{ \quad \quad \quad }$$



$$18x = 180$$

$$x = 10$$

$$\textcircled{6x+12} + \textcircled{90-(6x+12)} = 90$$

$$\cancel{6x+12} + 90 - \cancel{6x+12} = 90$$

48

$$90 - \cancel{12} (6x - 12)$$

