

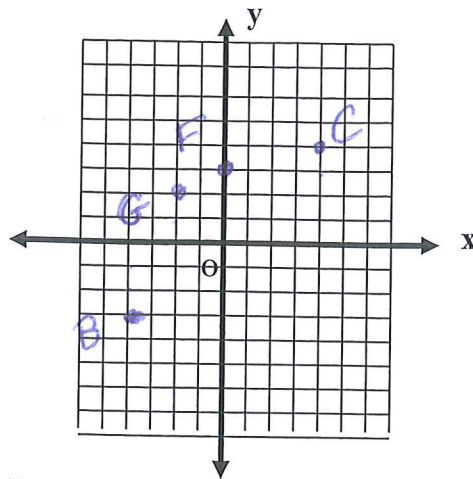
Geometry Chapter 1 Review

SHOW WORK

Name: Kuey
Date: _____ Hr: _____

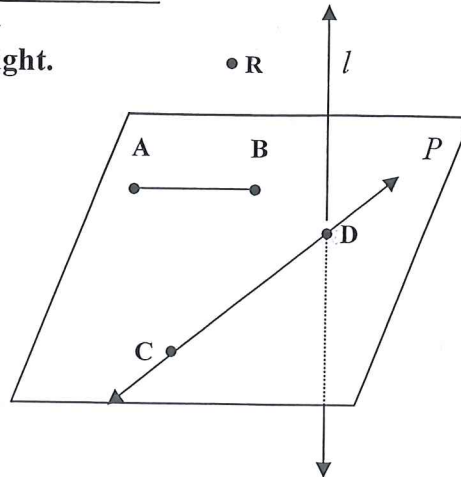
Graph and label each point.

- $B(-4, -3), C(4, 4)$
- $F(0, 3), G(-2, 2)$

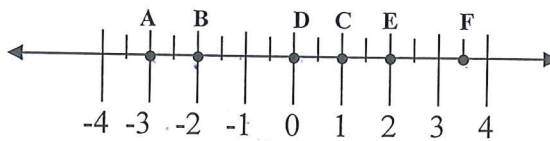


For questions 3-7, refer to the diagram at the right.

- Name the intersection of line l and \overline{CD} .
Point D
- If \overline{RB} and \overline{RC} were drawn, what would be their intersection?
Point R
- Name the intersection of \overline{CD} and plane P .
Point C or Point D
- Write another name for plane P .
Plane A B D
- Name four noncoplanar points.
Points R, A, B, C



For questions 8 and 9, refer to the number line below.



- Find AF .

$$|A-F| \quad |F-A|$$

$$|-3-3.5| \quad |3.5-(-3)|$$

$$|-6.5| = 6.5 \quad |6.5| = 6.5$$

— → ↔

- Find $AE - BD$.

$$AE = 5$$

$$BD = 2$$

$$5 - 2 = 3$$

(3)

- Find the length of the segment with endpoints $H(2, -3)$ and $J(6, 7)$.

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$d = \sqrt{(6 - 2)^2 + (7 - (-3))^2}$$

$$d = \sqrt{(4)^2 + (10)^2}$$

$$d = \sqrt{16 + 100}$$

$$d = \sqrt{116}$$

$$d = 10.8$$

For questions 11 to 12, write the *word* true or false.

11. If D is between M and T , then $MT = DT + MD$.

True



12. If C is the midpoint of AT , then $AT = 2AC$.

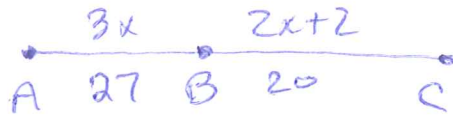
True



12b. In the space below, explain your answer to #12. Use complete sentences.

The distance from AC is half the distance from AT, so multiplying it by two should make them equal

13. Find x and AC if B is between A and C , $AB=3x$, $BC=2x+2$ and $BC=20$.



$$2x+2=20$$

$$2x=18$$

$$x=9$$

$$AC=47$$

14. Find the coordinates of the midpoint of the segment MN with endpoints $M(8, 9)$ and $N(-2, -1)$.

$x_1=8, y_1=9, x_2=-2, y_2=-1$

$$\left(\frac{8+(-2)}{2}, \frac{9+(-1)}{2} \right)$$

$$\left(\frac{6}{2}, \frac{8}{2} \right)$$

$$(3, 4)$$

15. Find x and $m\angle ADC$ if \overline{DB} bisects $\angle ADC$, $m\angle 1 = 6x - 6$, and $m\angle 2 = 3x + 15$.

$$6x - 6 = 3x + 15$$

$$\begin{array}{r} 6x - 6 = 3x + 15 \\ -3x \quad -3x \\ \hline 3x - 6 = 15 \\ +6 \quad +6 \\ \hline 3x = 21 \end{array}$$

$$x = 7$$

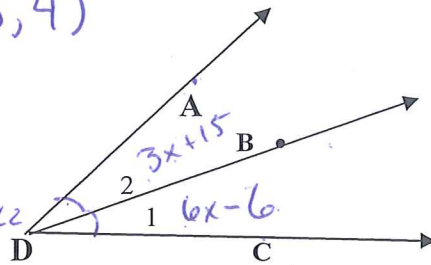
$$3x + 15 + 6x - 6 = \angle 1 + \angle 2$$

$$9x + 9 = \angle ADC$$

$$9(7) + 9 = \angle ADC$$

$$63 + 9 = \angle ADC$$

$$72 = \angle ADC$$



QUESTION 15

For questions 16-19, refer to the figure below—use the correct symbols/method!

16. Name the obtuse angle.

$\angle DAB, \angle A, \angle BAD$

17. Name two pairs of supplementary angles.

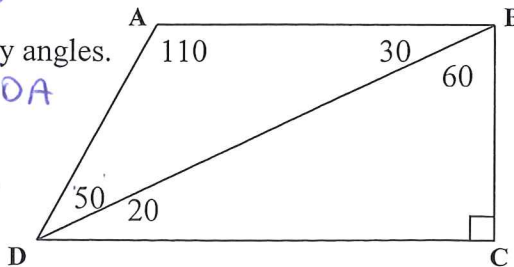
$\angle CBA$ and $\angle BAD$ / $\angle BAD$ and $\angle CDA$

18. Name two congruent angles that are *not* right angles.

NA

19. Name two right angles.

$\angle ABC$ and $\angle BCD$



$$\angle 1 + \angle 2 = 180$$

20. The measure of an angle is three times the measure of its supplement. Find the measure of the angle.

$$3x + x = 180^\circ \quad \angle 1 = 45^\circ$$

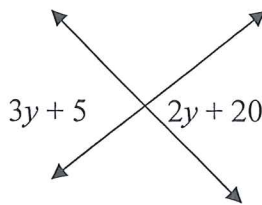
$$4x = 180^\circ$$

$$x = 45^\circ$$

21. Find the value of y .

$$3y + 5 = 2y + 20$$

$$y = 15$$



22. Find $m\angle 2$ if: $\angle 2$ forms a linear pair with $\angle 1$, $m\angle 2 = 10x + 5$, and $m\angle 1 = 20x - 5$.

$$10x + 5 + 20x - 5 = 180$$

$$30x = 180^\circ$$

$$x = 6$$

$$\begin{aligned} \angle 2 &= 10x + 5 \\ &= 10(6) + 5 \end{aligned}$$

$$= 60 + 5$$

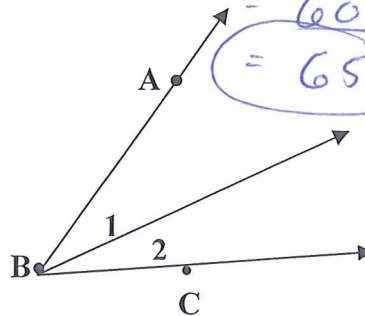
$$= 65^\circ$$

23. Find the value of x if $m\angle ABC = 6x$, $m\angle 1 = 2x + 5$, and $m\angle 2 = 3x - 1$.

$$2x + 5 + 3x - 1 = 6x$$

$$5x + 4 = 6x$$

$$4 = x$$

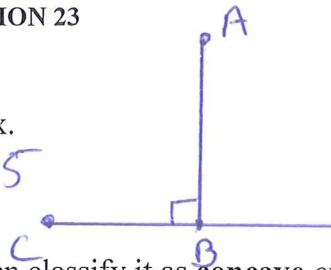


QUESTION 23

24. If Line $AB \perp$ Line BC , and $m\angle ABC = 3x + 15$, find x .

$$3x + 15 = 90 \quad x = 25$$

$$3x = 75$$



- 25a. Name the polygon below *by its sides* (be specific!); then classify it as **concave or convex**, **regular or not regular**.

(There are 3 answers!)

Pentagon
(name)

Convex
(convex/concave)

Regular
(Regular/Not Reg)

- 25b. Find the perimeter of the polygon for $x = 6$.

$$S = 5x - 8$$

$$S = 5(6) - 8$$

$$S = 30 - 8$$

$$S = 22$$

$$22(5)$$

$$110$$

