

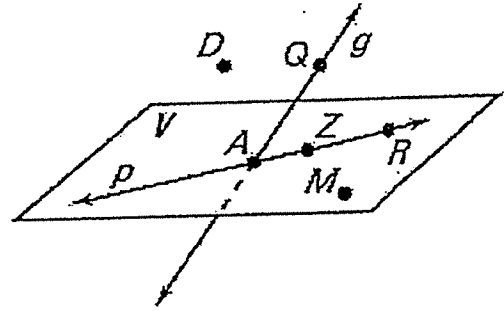
Name: _____
 Final Review part # 1

Key

Use the diagram to answer the following questions.

1. Find three points that are collinear.

*Answers May Vary
 A, Z, R



2. Write three different names for line p.

\overleftrightarrow{AZ} , \overleftrightarrow{AR} , \overleftrightarrow{ZR}

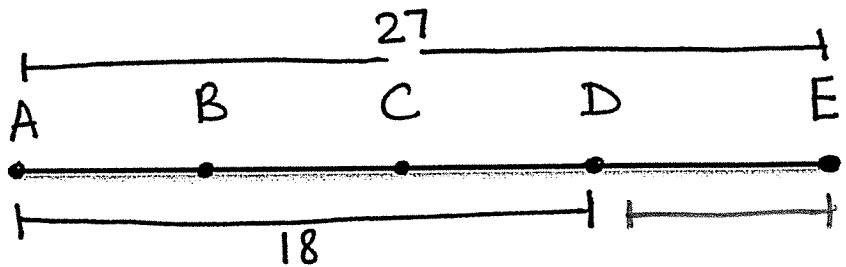
3. Name a point not coplanar with M, R, and Z.

Q, or D

4. What is the intersection of \overline{AQ} and \overline{ZR} ?

Point A

Find the indicated length.



5. DE 9

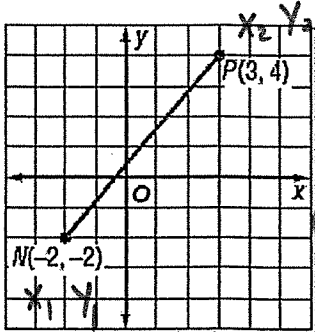
7. BD 12

6. AB 6

8. CE 15

Find the distance and midpoint for the given lines

7.

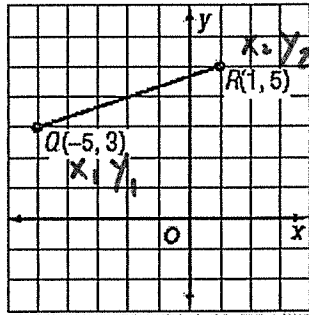


$$M\left(\frac{3-2}{2}, \frac{4-2}{2}\right)$$

$$M\left(\frac{1}{2}, 1\right)$$

$$d = \sqrt{(4 - (-2))^2 + (3 - (-2))^2}$$

$$d = \sqrt{36 + 25} = \sqrt{61} = d$$



$$d = \sqrt{(5-3)^2 + (1-(-5))^2}$$

$$d = \sqrt{4 + 36}$$

$$d = \sqrt{40}$$

$$M\left(\frac{1-5}{2}, \frac{5+3}{2}\right)$$

$$M = (-2, 4)$$

Find the exact distance between the two points.

9. $A(2, 3)$ and $B(5, -1)$

$$d = 5$$

10. $C(4, -7)$ and $D(-8, -2)$

$$d = 13$$

11. $E(-1, 5)$ and $F(3, 10)$

$$d = 6.4$$

12. $G(7, 1)$ and $H(5, 9)$

$$d = 8.2$$

$\angle 1$ and $\angle 2$ are complementary angles. *Add up to 90°* Given the measure of $\angle 1$, find $m\angle 2$.

13. $m\angle 1 = 22^\circ$
 $90 - 22 = \boxed{68^\circ}$

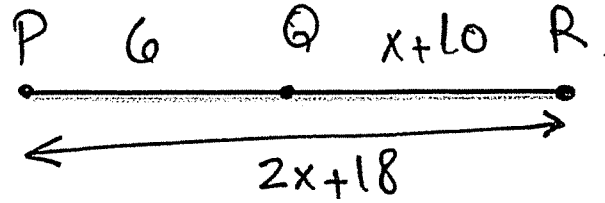
14. $m\angle 1 = 89^\circ$
 $90 - 89 = \boxed{1^\circ}$

$\angle 3$ and $\angle 4$ are supplementary angles. *180°* Given the measure of $\angle 3$, find $m\angle 4$.

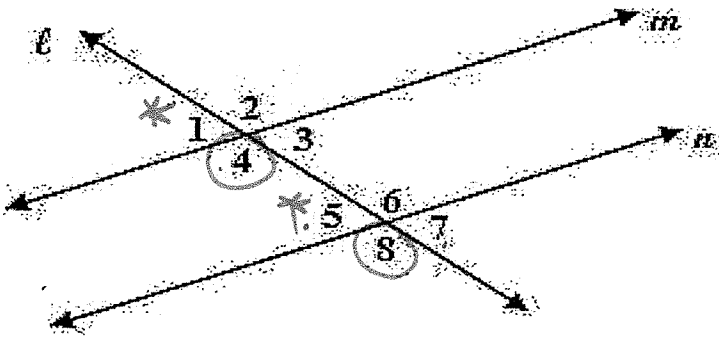
15. $m\angle 3 = 14^\circ$
 $180 - 14 = 166^\circ$
 $m\angle 4 = \boxed{166^\circ}$

16. $m\angle 3 = 100$
 $180 - 100 = 80^\circ$
 $m\angle 4 = \boxed{80^\circ}$

Statements	Reasons
$PQ + QR = PR$	17. _____? <u>A</u>
$6 + x + 10 = 2x + 18$	Substitution Property
$x + 16 = 2x + 18$	18. _____? <u>D</u>
$x + 18 = 16$	Subtraction Property of Equality
$x = -2$	19. _____? <u>C</u>



- A. Segment Addition Postulate
- B. Addition Property of =
- C. Subtraction Property of =
- D. Combine Like Terms
- E. Distributive Property



20. Name all the pairs that form corresponding angles.

- $\angle 2$ and $\angle 6$ $\angle 1$ and $\angle 5$
- $\angle 3$ and $\angle 7$ $\angle 4$ and $\angle 8$

21. Name all the pairs that form alternate interior angles.

- $\angle 3$ and $\angle 5$
- $\angle 4$ and $\angle 6$

22. Name all the pairs that form same-side interior angles.

- $\angle 3$ and $\angle 6$
- $\angle 4$ and $\angle 5$

23. Name all the pairs that form vertical angles

- $\angle 2$ and $\angle 4$ $\angle 6$ and $\angle 8$
- $\angle 1$ and $\angle 3$ $\angle 5$ and $\angle 7$

24. If $m\angle 8 = 5x + 2$ and $m\angle 4 = 3x + 10$, solve for x

$$5x + 2 = 3x + 10$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$\boxed{x = 4}$$

25. Assume $m\angle 3 = 26$ degree. Find the measures for the rest of the angles

$$m\angle 3 = m\angle 1 = m\angle 5 = m\angle 7 = 26^\circ$$

$$m\angle 2 = m\angle 4 = m\angle 6 = m\angle 8 = 154^\circ$$

26) Find each of the following:

a) x

$$5x - 15 = 3x + 1$$

$$2x = 16 \quad \boxed{x = 8}$$

b) $m\angle LAT$

$$20(8) - 5 = \boxed{155^\circ}$$

c) $m\angle TAO$

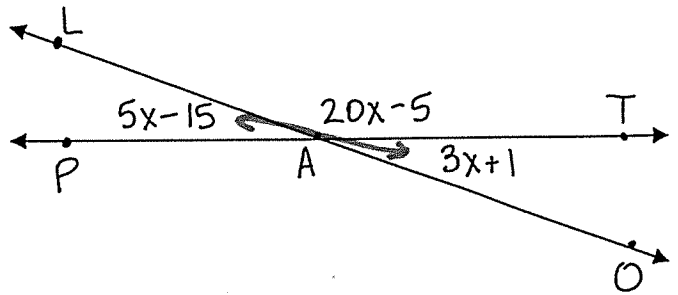
$$3(8) + 1 = \boxed{25^\circ}$$

d) $m\angle PAO$

$$\angle PAO \cong \angle LAT$$

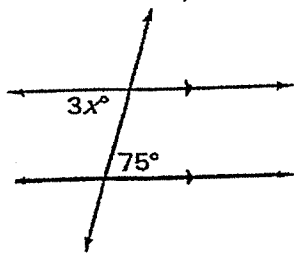
$$\boxed{m\angle PAO = 155^\circ}$$

Vertical angles.



Find the value of x .

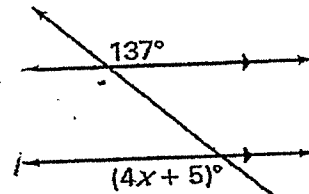
27.



$$3x = 75$$

$$\boxed{x = 25^\circ}$$

28.

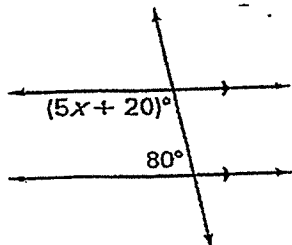


$$4x + 5 = 137$$

$$\frac{4x}{4} = \frac{132}{4}$$

$$\boxed{x = 33}$$

29.



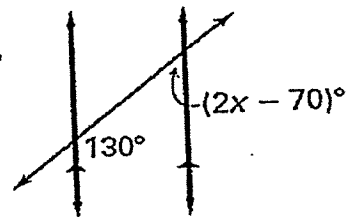
$$5x + 20 + 80 = 180$$

$$5x + 100 = 180$$

$$5x = 80$$

$$\boxed{x = 16}$$

30.



$$2x - 70 + 130 = 180$$

$$\frac{2x}{2} = \frac{120}{2}$$

$$\boxed{x = 60}$$