

# Chapter 1 Test Review

1. 2 lines intersect at a point.

2. 2 planes intersect at a line.

3. A plane and a line intersect at a point or a line.

For #4-8 use the figure to the right.

4. Name the intersection on line  $a$  and line  $c$ . Point P

5. Name line  $b$  another way.

$\overleftrightarrow{SX}$  /  $\overleftrightarrow{XT}$  /  $\overleftrightarrow{ST}$  /  $\overleftrightarrow{XS}$  /  $\overleftrightarrow{TX}$  /  $\overleftrightarrow{TS}$

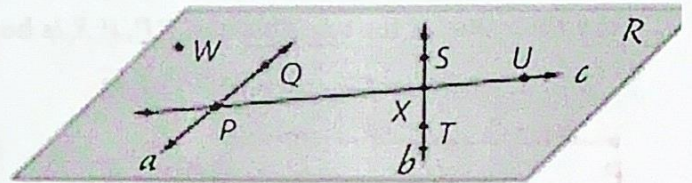
6. Name a point not on lines  $a, b$ , or  $c$ .

Point W

7. Name plane  $R$  another way. Plane PDW / Plane SXU / Plane PXT / Plane PQST / Plane SXTU / Plane WQPS...

8. Name three collinear points.

S, X, T



For #9-18 use the image to the right.

9. Name the intersection of plane  $HEF$  and plane  $GCB$ .  $\overleftrightarrow{GF}$

10. Name the intersection of plane  $HDA$  and  $\overleftrightarrow{ED}$ .  $\overleftrightarrow{ED}$

11. Name the intersection of  $\overleftrightarrow{FN}$  and  $\overleftrightarrow{GC}$ .  $N$

12. Name the intersection of plane  $EFC$  and plane  $ABC$ .  $\overleftrightarrow{BC}$

13. Name plane  $DAF$  another way. Plane DAFG

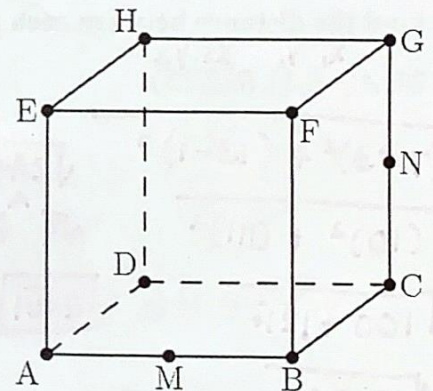
14. Are the points  $A, B$ , and  $G$  coplanar? yes

15. Are the points  $D, H, F$ , and  $B$  coplanar? yes

16. Are the points  $H, G, F$ , and  $B$  coplanar? NO

17. Are the points  $F$ , and  $D$  collinear? yes

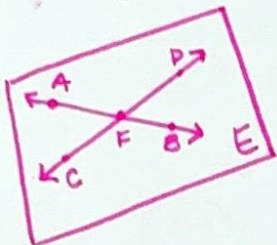
18. Are the points  $A, M$ , and  $C$  collinear? NO



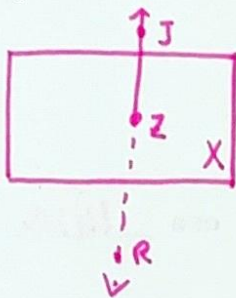


Draw a figure based if the given description.

19.  $\overleftrightarrow{AB}$  and  $\overleftrightarrow{CD}$  intersect at  $F$  in plane  $E$ .



20. Plane  $X$  intersected by  $\overleftrightarrow{JR}$  at point  $Z$ .

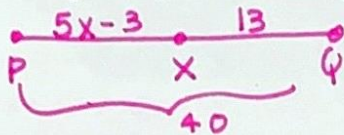


21. Line  $Q$  contains points  $V$ ,  $R$ , and  $M$ .



Find the value of the variable and  $XP$ , if  $X$  is between  $P$ , and  $Q$ .

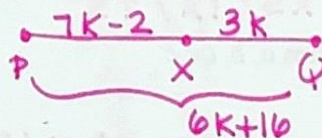
22.  $XQ = 13$ ,  $XP = 5x - 3$ , and  $PQ = 40$ .



$$27 = XP$$

$$X = 0$$

23.  $XQ = 3k$ ,  $XP = 7k - 2$ , and  $PQ = 6k + 16$ .



$$29.5 = XP$$

$$k = 4.5$$

Find the distance between each pair of points.

24.  $A(-3, 1)$ ,  $B(7, 13)$

$$2\sqrt{61}$$

25.  $P(2, -1)$ ,  $Q(10, -7)$

$$10$$

Find the coordinates of the midpoint of a segment with the given endpoints.

26.  $L(-3, 16)$ ,  $M(17, 4)$

$$(7, 10)$$

27.  $C(32, -1)$ ,  $D(0, -12)$

$$(16, -6.5)$$

Find the coordinates of the missing endpoint if  $M$  is the midpoint of  $XY$ .

28.  $X(-11, -6), M(15, 4)$

$Y(41, 14)$

29.  $M(-4, 8), Y(10, 0)$

$X(-18, 16)$

29. Carol and Marita are hiking in a state park and decide to take separate trails. The map of the park is set up on a coordinate grid. Carol's location is at the point  $(7, 13)$  and Marita is at  $(3, 5)$ .

a.) Find the distance between them.

b.) Find the coordinates of the point midway between them.

$4\sqrt{5} \approx 8.94$

$(5, 9)$

For #30-36 use the figure to the right.

30. Name the vertex of  $\angle 7$ .  $G$

31. Name the vertex of  $\angle 9$ .  $G$

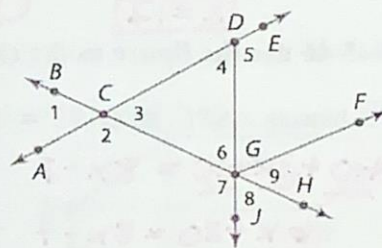
32. Write another name for  $\angle 4$ .  $\angle CDG / \angle ADG / \angle CDJ / \angle ADJ$

33. Write another name for  $\angle BCD$ .  $\angle DCB / \angle ECB / \angle BCE$

34. Name the sides of  $\angle 2$ .  $\overrightarrow{CA} \text{ ? } \overrightarrow{CG} / \overrightarrow{CH}$

35. Name the sides of  $\angle 3$ .  $\overrightarrow{CB} / \overrightarrow{CE} \text{ ? } \overrightarrow{CG} / \overrightarrow{CH}$

36. Name a pair of opposite rays.  $\overrightarrow{CB} \text{ ? } \overrightarrow{CG} / \overrightarrow{CA} \text{ ? } \overrightarrow{CD} / \overrightarrow{GD} \text{ ? } \overrightarrow{GJ} / \overrightarrow{GH} \text{ ? } \overrightarrow{GC}$



For #37-40 use the figure to the right.

37. Name an angle supplementary to  $\angle TVY$ .

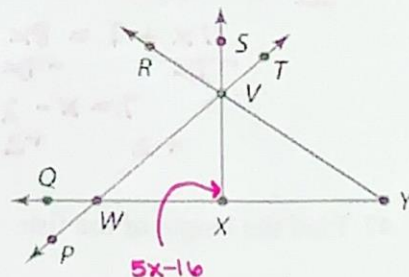
$\angle TVR / \angle YVW$

38. Name a pair of vertical angles with vertex  $W$ .

$\angle QWP \text{ ? } \angle VWX / \angle QWV \text{ ? } \angle PWX$

39. Name an angle adjacent to  $\angle QVR$ .  $\angle WVR$

$\angle WVX / \angle WVY / \angle RVS / \angle RVT$

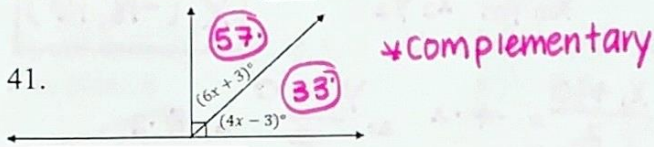


40. If  $m\angle SXW = 5x - 16$ , find the value of  $x$  so that  $\overline{SX} \perp \overline{WY}$ .

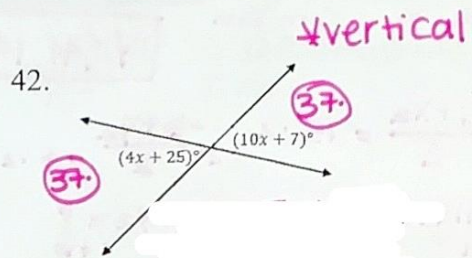
$x=21.2$



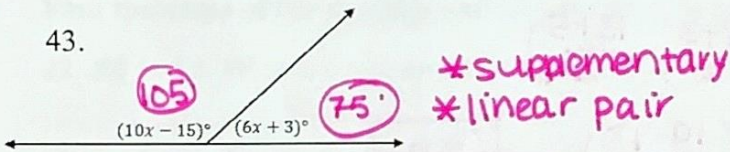
Find the value of  $x$  and each angle.



$x = 9$

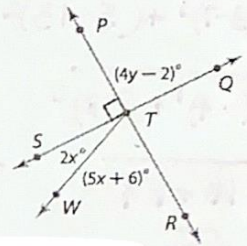


$3 = x$



$x = 12$

44. Solve for  $x$  and  $y$ .



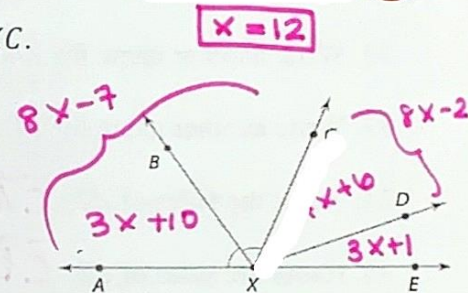
$y = 23$

For #45-46 use the figure to the right.

45.  $\overline{XB}$  bisects  $\angle AXC$ .  $m\angle AXC = 8x - 7$  and  $m\angle AXB = 3x + 10$ , find  $m\angle AXC$ .

$13.5 = x$

$101 = \angle AXC$



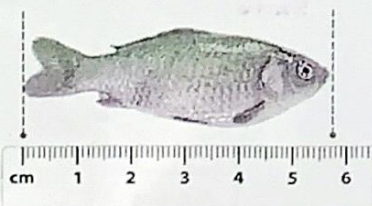
$x = 12$

46.  $m\angle CXD = 4x + 6$ ,  $m\angle DXE = 3x + 1$ , and  $m\angle CXE = 8x - 2$ , find  $m\angle DXE$ .

$9 = x$

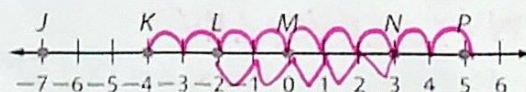
$28 = \angle DXE$

47. Find the length of the fish.



$5.7 \text{ cm}$

Use the number line to find the length of each segment.



48.  $KP = 9$

49.  $NL = 5$