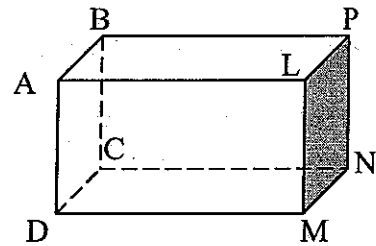
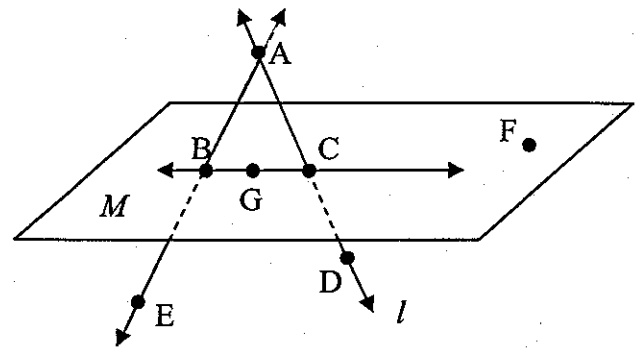


Use the figure at right to name each of the following.



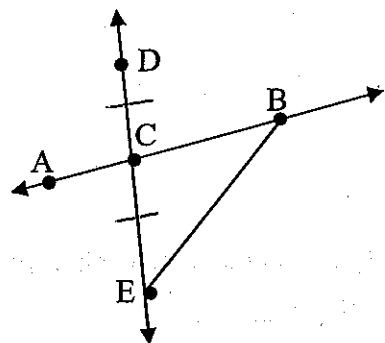
1. P a point coplanar with points L, M, and N
2. M a point coplanar with points B, C, and L
3. LP the intersection of plane ABPL and plane LPNM
4. M the intersection of \overline{DM} and \overline{NM}
5. B the intersection of plane ABCD, plane ABPL and plane BCNP
6. Plane ABCD a plane that does not intersect plane LPNM

Use the figure at right to answer true or false.



7. True \overline{BC} is in plane M
8. False plane M contains \overline{AB}
9. True A, B and E are collinear.
10. True B, G and F are coplanar
11. True M contains \overline{BC}
12. True \overline{AE} intersects M at point B.
13. False another name for plane M is plane BGC *the pts are collinear*
14. True A, B and C are coplanar *3 noncollinear pts determine a plane*
15. False another name for line l is \overleftrightarrow{AC} . *need symbol!*
16. False C lies on \overline{GB}

In the figure at right, \overline{AB} is a bisector of \overline{DE} Answer True or False.

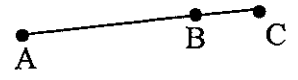


17. \overline{CA} is the same as \overline{AC} False
18. \overline{DC} and \overline{CD} are opposite rays False
19. C is the midpoint of \overline{BA} False
20. C is the midpoint of \overline{DE} True
21. $AC + CB = AB$ True *Segment (+) Post*
22. $AD + DB = AB$ False
23. $\overline{DC} \cong \overline{EC}$ True
24. \overline{AB} is a bisector of \overline{DE} True

Use the figure at right and the given information to answer the following questions.

25. If $AB = 4x$, $BC = 2x + 8$ and $AC = 50$, find AB .

$4x + 2x + 8 = 50$ Use segment (+) Post
 $6x + 8 = 50 \rightarrow 6x = 42 \rightarrow x = 7$ $AB = 4(7)$



26. If B is the midpoint of \overline{AC} , and $AB = 6x$, $BC = 4x + 12$, find AB .

creates 2 segments $6x = 4x + 12$
 $2x = 12 \rightarrow x = 6$ $AB = 6(6)$

27. If B is the midpoint of \overline{AC} , and $AB = x$ and $AC = 4x - 6$, find x .

* $AB = BC$ so if $AB = x$, $BC = x$
 $x + x = 4x - 6$
 $2x = 4x - 6 \rightarrow -2x = -6$ $x = 3$

28. If $AB = 4x$, $BC = x + 9$ and $AC = 24$, determine whether B is the midpoint of \overline{AC} .

$4x + x + 9 = 24$ seg (+) Post
 $5x + 9 = 24 \rightarrow 5x = 15 \rightarrow x = 3$
 $AB = 4(3) = 12$
 $BC = (3) + 9 = 12$

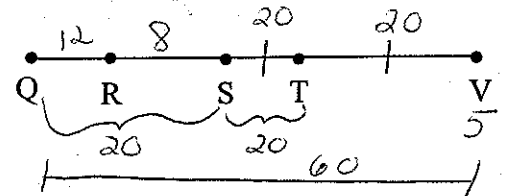
Since $AB = BC$
 B is the midpoint

In the figure at right, $\overline{ST} \cong \overline{TV}$, S is the midpoint of \overline{QT} , $TV = 20$ and $RS = 8$. Find the following:

29. $QS = 20$ 30. $QR = 12$

31. $\overline{QS} \cong \overline{ST} \cong \overline{TV}$ 32. $QV = 60$

33. If the coordinate of V = 5:



What is the coordinate of T? -15 What is the coordinate of Q? -55
 $5 - 20 = -15$ $5 - 60 = -55$

In the figure at right, \overline{DB} bisects \overline{AC}

34. Give another name for $\angle 3$ $\angle DBA$ or $\angle EBA$ 35. Give another name for $\angle 5$ $\angle CEB$

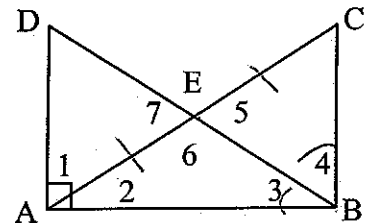
36. Name the sides of $\angle 6$. \overline{EA} and \overline{EB}

37. Name the vertex of $\angle 6$. E

38. $m\angle 6 + m\angle 7 = 180^\circ$

39. $m\angle 4 + m\angle 3 = m\angle CBA$

40. $m\angle DAB - m\angle 1 = m\angle 2$



41. If \overline{DE} bisects $\angle CBA$ and $m\angle 3 = 2x + 10$ and $m\angle 4 = 3x$, then $x = 10$.
 $2x + 10 = 3x$

42. If $m\angle 4 = 3x$ and $m\angle 3 = 2x + 10$ and $m\angle CBA = 90$, then $x = 16$.

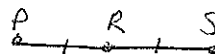
$3x + 2x + 10 = 90$
 $5x + 10 = 90$
 $5x = 80$

43. $\overline{EA} \cong \overline{EC}$

Classify as acute, obtuse, right or straight.

44. $\angle BAD$ Right 45. $\angle 2$ acute 46. $\angle DEB$ straight

R is the midpoint of \overline{PS} . Find each value.



47. $PR = 3x + 2$, $RS = 5x - 4$

48. $PR = 6x - 1$, $PS = 8x$

$x = 3$
 $3x + 2 = 5x - 4$
 $6 = 2x$

$RS = 2$
 $PR = RS$
 $6x - 1 = 4x - 1$
 $2(6x - 1) = 8x$
 $12x - 2 = 8x$
 $-2 = -4x$

$RS = 6(\frac{1}{2}) - 1$
 $RS = 3 - 1$
 $RS = 2$
 $RS = \frac{1}{2}$