

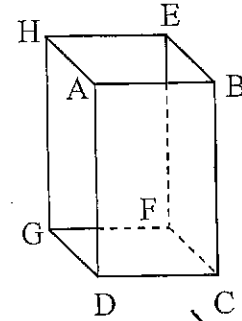
Key

1-6) True/False

- 1.) A line is named using three points on the line. False
- 2.) A plane is named with a lower case letter. False
- 3.) A segment has two endpoints. True
- 4.) A line is one-dimensional. True
- 5.) Congruent segments have different lengths. False
- 6.) The bisector of a segment contains the midpoint of the segment. True

(7-10), use the figure on the right

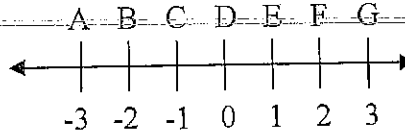
7.) The intersection of plane ABCD and plane HEAB is:



- a.) ~~AB~~  
 b.)  $\overrightarrow{BA}$   
 c.)  $\overrightarrow{AB}$   
 d.)  $\overrightarrow{AB}$

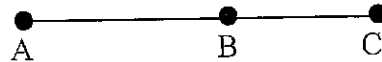
- 8.)  $\overline{AD}$  intersects plane HEBA at point A.
- 9.) Could points A, D, and F be coplanar? Yes ADFE
- 10.) Name a point that is noncoplanar with G, D, and C. E. (A, H, B)

(11-13) Use the number line to answer the following:

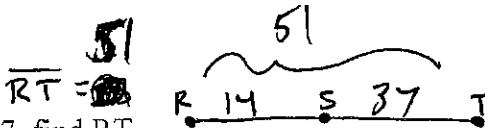


- 11.) What is the length of  $\overline{BE}$ ? 3
- 12.) What is the midpoint of  $\overline{BF}$ ? D
- 13.) Name a segment congruent to  $\overline{EG}$ . DF (Many answers)

(14-16) Find the value of the variable. Use the figure on the right.



- 14.)  $AB = 12$ ,  $AC = 21$ , and  $BC = x$   
 $x = 9$
- 15.)  $AB = 2p + 5$ ,  $AC = 56$ , and  $BC = 3p + 1$   
 $5p + 6 = 56$   $p = 10$
- 16.)  $AB = x$ ,  $BC = 2x$ , and  $AC = 60$   
 $x = 20$



Answer the following:

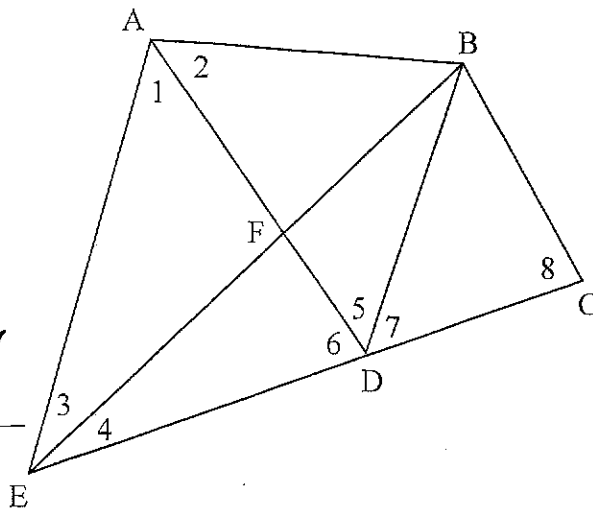
- 17.) If S is between R and T and  $SR = 14$ . If  $ST = 37$ , find RT. 51
18. Two lines intersect in a(n) one point.
19. The point at the exact middle of a segment is called the midpoint.
20. A line and a plane intersect in a(n) one point.

True/False

- 21.) If two planes intersect, then their intersection is a segment. False
- 22.) If two lines intersect, then exactly one plane contains the two lines. True
- 23.) If two angles have the same measure, they are congruent angles. True
- 24.) Through any 2 points there is exactly one line. True
- 25.) An angle with a measure of  $88^\circ$  is acute. True

Use the figure on the right to answer the following.

26. Give another name for  $\angle DAB$ .  $\angle 2$   
 27. Name an angle adjacent to  $\angle 2$ .  $\angle 1$   
 28. Name a straight angle.  $\angle EFB$   
 29. Is  $\angle C$  another name for  $\angle 8$ ? YES  
 30. Is  $\angle E$  another name for  $\angle 3$ ? NO  
 31.  $m\angle 6 + m\angle 5 = m\angle EDB$ .  
 32. Name an angle adjacent to  $\angle 5$ .  $\angle 6$  or  $\angle 7$   
 33. Name an angle adjacent to  $\angle AFB$ .  $\angle AFE$   
 34. If  $\angle EDC$  is a straight angle, then its measure is  $180^\circ$ .  
 35. If  $m\angle AED = 72$  degrees, and  $m\angle 3 = 46$  degrees then  $m\angle 4 =$   $26^\circ$ .

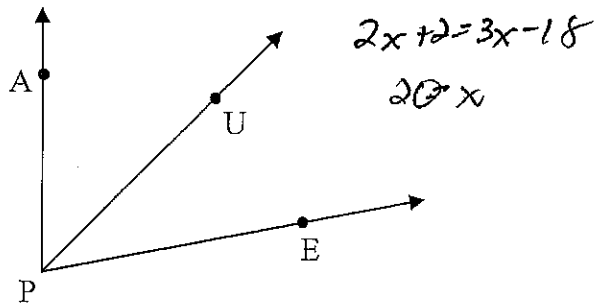


36. If  $m\angle 5 = 2x + 14$ , and  $m\angle 7 = 3x + 12$ , and  $m\angle ADC = 7x - 2$ , then  $x =$  14

$$5x + 26 = 7x - 2$$

$$28 = 2x$$

- In the diagram  $\overrightarrow{PU}$  is a bisector of  $\angle APE$
- 37.) If  $m\angle APU = (2x + 2)^\circ$  and  $m\angle UPE = (3x - 18)^\circ$   
 Find  $x$  20
- 38.) If  $m\angle EPA = 80^\circ$  find  $m\angle EPU =$  40
- 39.) If  $m\angle APU = (2p + 12)^\circ$  and  $m\angle APE = (8p - 24)^\circ$   
 $p =$  12



$$2x + 2 = 3x - 18$$

$$20 = x$$

$$2p + 12 = 4p - 24$$

$$24 = 2p$$

- 40.) From the diagram below, if  $m\angle 1 = 3p - 5$ , and  $m\angle 2 = p + 33$ , and  $m\angle 3 = 2p + 20$ . Find  $p$

$$3p - 5 + p + 33 + 2p + 20 = 180$$

$$6p + 48 = 180$$

$$6p = 132$$

$$p = 22$$

