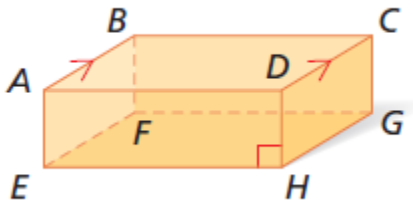
Name: _____Date:_____Block:_____

ADVANCED GEOMETRY CHAPTER 3 REVIEW

BE SURE TO:
*Read the directions carefully and answer what the question is asking
*If you get stuck, look back to the section in your notes the problem comes from. This is probably a hint that you should spend more time studying this section.

1. Name the following:
   a. A segment parallel to AB
   b. A segment perpendicular to DH
   c. A line skew to AE that goes through point B
   d. A plane parallel to Plane ABC



Write the equation of the line in slope-intersect form passing through the given points:

2) $(-2,-3) and\ (-4,3)$

3) $(-5,-5) and\ (-3,-1)$

Write the equation of the line based on the information provided below:

4) $parallel\ to\ y=-\frac{7}{3}x+3;\ through\ \ (-3,-1)$

5) $perp.\ to\ y=\frac{1}{2}x+2;\ through\ \ (-3,-7)$

6) $parallel\ to\ y = \frac{2}{5}x + 3;\ through\ (3, 7)$

7) $perp.to\ y = -3x - 5;\ through\ (5, -2)$

Write the equation of the perpendicular bisector of segment AB:

8) $A(-2, -3),\ B(-4, 3)$

9) $A(5, 3),\ B(-7, 7)$

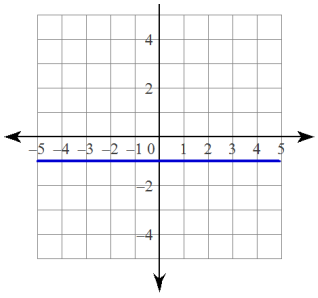
Find the coordinates of point Q along the directed line segment LM so that LQ to QM is the given ratio.

10) L(-1, -2), M(3,6); ratio 5 to 3

11) L(2,7), M(-1,1); ratio 2 to 1

Write the equation of each line.

12.



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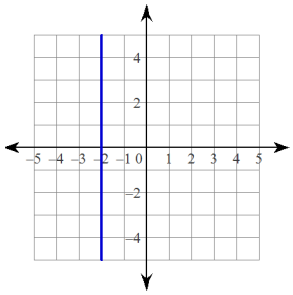
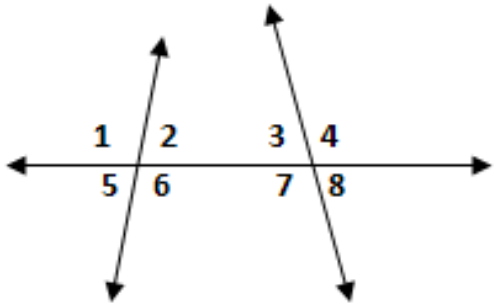


14. A vertical line through (2, -5)

15. A horizontal line through (4, -2)

16-22. Match the correct angle pair with the given set of angles.

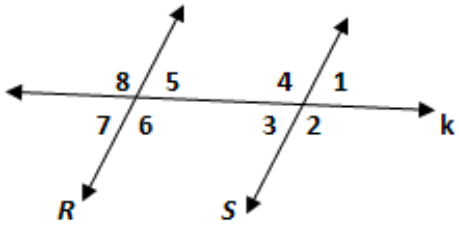
A. Alternate Interior
B. Consecutive Interior
C. Alternate Exterior
D. Corresponding
E. Vertical
F. Linear Pair
G. No Relationship



16. $\angle 1, \angle 8$_____
17. $\angle 3, \angle 6$_____
18. $\angle 3, \angle 7$_____
19. $\angle 1, \angle 6$_____
20. $\angle 5, \angle 8$_____
21. $\angle 2, \angle 4$_____
22. $\angle 6, \angle 7$_____

Use the figure to the right to answer #23-25

23. If R and S are parallel lines and $\angle 1$ = 4x - 3 and $\angle 7$ = 3x+ 4 , find the measure of $\angle 2$.

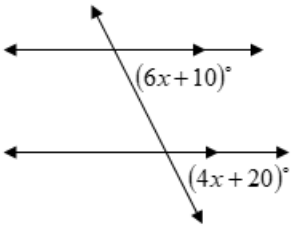


24. If R and S are parallel lines and $\angle 3$ = 2x + 15 and $\angle 5$ = 5x+ 3 , find the measure of $\angle 2$.

25. If R and S are parallel lines and $\angle 5$ = 3x + 30 and $\angle 4$ = 5x + 22, find the measure of $\angle 2$.

Find the value of all missing variables.

26.



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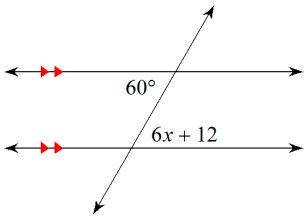

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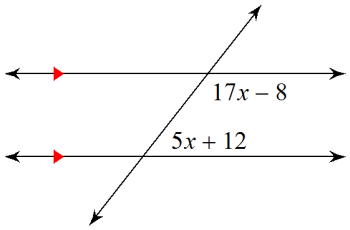

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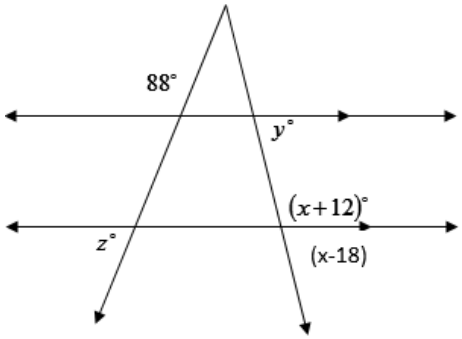

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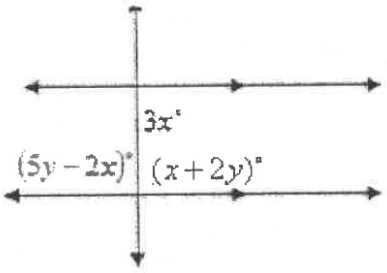

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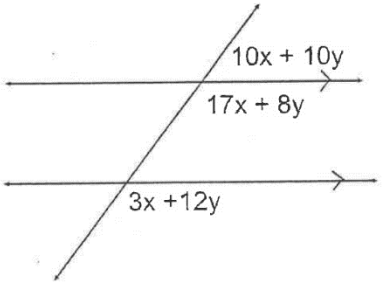

32. Find the distance from P(4, 8) to the line $6 = y + 2x$.

33. Find the distance from P (-2, 1) to $y = \frac{1}{4}x - 3$.