

**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.

**3.5-3.6 Slope and Linear Equations**

Find the missing variable.

1)  $(x, -4), (7, 6)$  when the slope is  $5/2$

2)  $(-22, -4), (-12, y)$  when the slope is  $3/5$

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

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

4)  $(-5, -5)$  and  $(-3, -1)$

5)  $(5, -7)$  and  $(5, 2)$

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

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

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

Write the equation of the perpendicular bisector of segment AB:

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

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

Write the equation of a line that is 1) parallel, 2) coinciding, and 3) intersecting with the line provided.

10)  $y = -\frac{7}{3}x + 3$

11)  $2x + 3y = 12$

### 3.6 Continued

Write the equation of the line that best models the table.

12)

X	Y
1	-3
3	1
5	5
7	9

13)

x	y
3	0.45
5	0.75
7	1.05
10	1.50

14) Circle the table that represents the function  $y = 4x + 3$  ?

x	Y
0	3
1	4
2	8
3	12

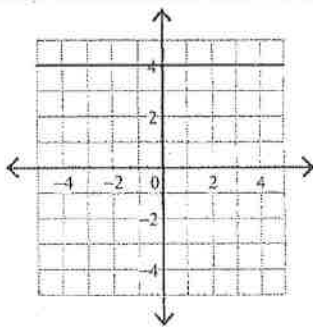
x	y
4	11
5	12
6	13
7	14

x	Y
0	3
2	11
4	19
6	27

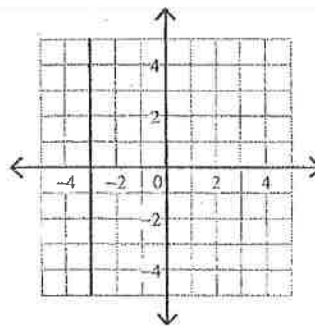
x	Y
1	7
2	11
3	17
4	21

Write the equation of each line.

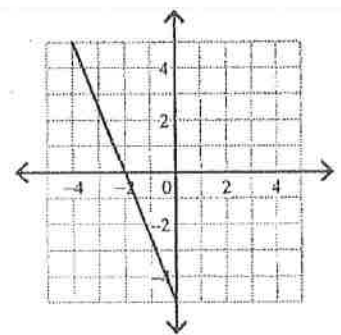
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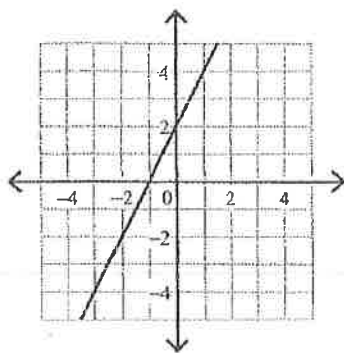
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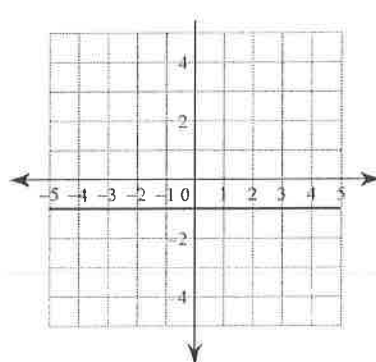
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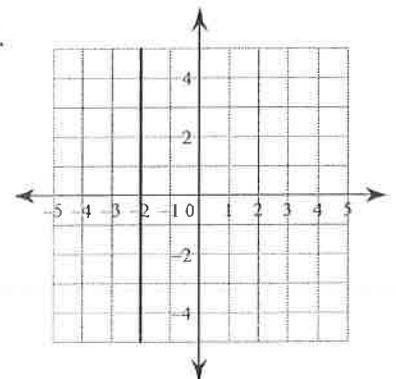
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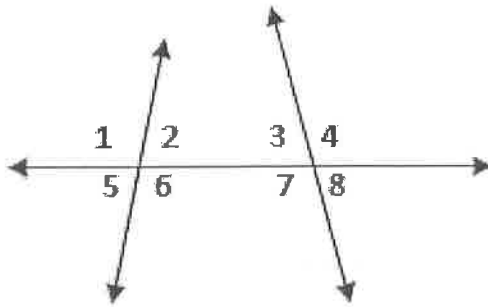
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3.2 - 3.3 - Parallel Lines and Angle Pairs.

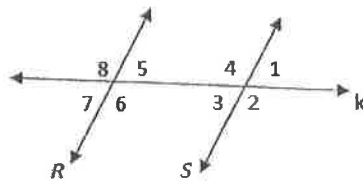
Match the correct angle pair with the given set of angles.

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



- 21.  $\angle 1, \angle 8$  \_\_\_\_\_
- 22.  $\angle 3, \angle 6$  \_\_\_\_\_
- 23.  $\angle 3, \angle 7$  \_\_\_\_\_
- 24.  $\angle 1, \angle 6$  \_\_\_\_\_
- 25.  $\angle 5, \angle 8$  \_\_\_\_\_
- 26.  $\angle 2, \angle 4$  \_\_\_\_\_
- 27.  $\angle 6, \angle 7$  \_\_\_\_\_

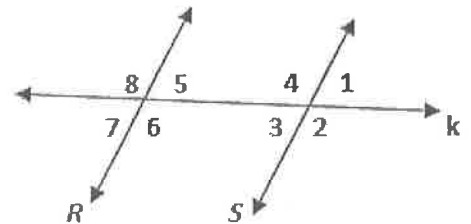
Fill in the Blanks.



by (what theorem?)

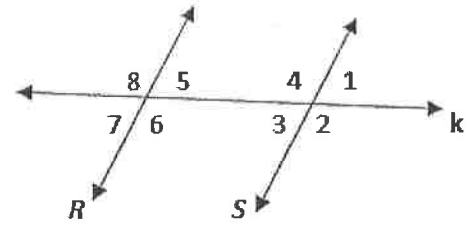
- 28. If R is parallel to S, then the corresponding angles are \_\_\_\_\_ by \_\_\_\_\_.
- 29. If R is parallel to S, then alternate interior angles are \_\_\_\_\_ by \_\_\_\_\_.
- 30. If R is parallel to S, then same side interior angles are \_\_\_\_\_ by \_\_\_\_\_.
- 31. If R is parallel to S, then the alternate exterior angles are \_\_\_\_\_ by \_\_\_\_\_.
- 32. If  $\angle 2$  and  $\angle 6$  are \_\_\_\_\_, then R is Parallel to S by \_\_\_\_\_.
- 33. If  $\angle 3$  and  $\angle 6$  are \_\_\_\_\_, then R is Parallel to S by \_\_\_\_\_.
- 34. If  $\angle 1$  and  $\angle 7$  are \_\_\_\_\_, then R is Parallel to S by \_\_\_\_\_.
- 35. If  $\angle 3$  and  $\angle 5$  are \_\_\_\_\_, then R is Parallel to S by \_\_\_\_\_.

- 36. Given  $\angle 1 = 4x - 3$  and  $\angle 7 = 3x + 4$ , find the value of x that makes R and S parallel lines.



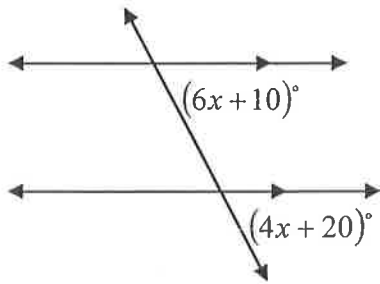
- 37. If R and S are parallel lines and  $\angle 3 = 2x + 15$  and  $\angle 5 = 5x + 3$ , find the measure of  $\angle 2$ .

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

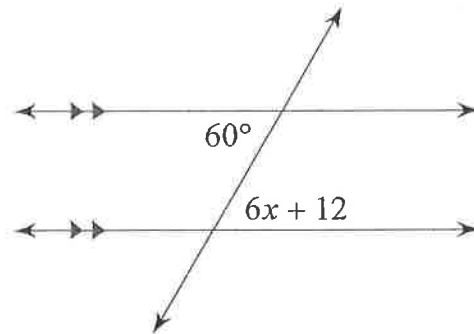


Find the value of all missing variables.

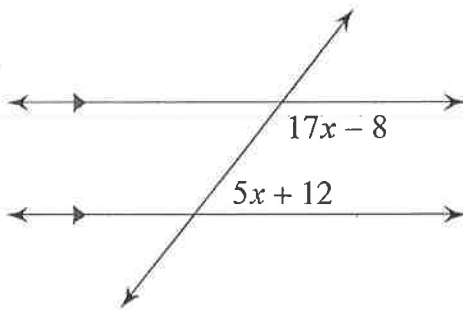
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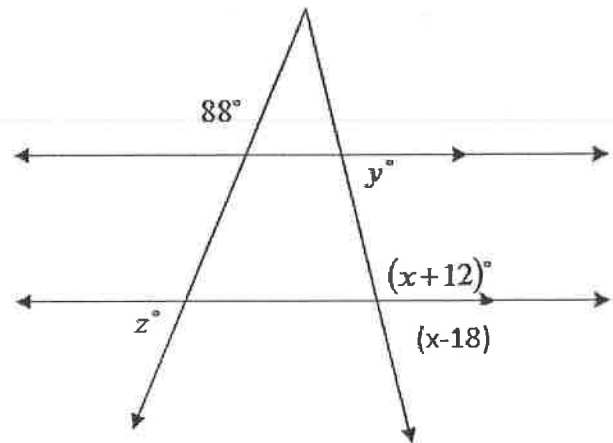
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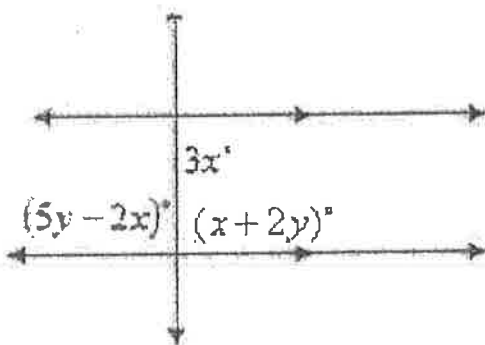
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43.



44.

