Geometry Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Equations of Lines Review

1. The slope of is  and the slope of  is . What can be concluded about  and ?

2. The midpoint of has coordinates (-1,1). Point A has coordinates (-5,3). What is the y-coordinate coordinate of point C?

3. Which is the equation of a line parallel to 

 a. 

 b. 

 c. 

 d. 

4. Find the distance from (-2, -8) to (-9, 1).

5. Find the perimeter of  with vertices *A*(–8, –4), *B*(–4, –4), and *C*(–8, –1).



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6. Graph *y* = *x* +1.

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7. Graph .

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8. Write an equation in point-slope form of the line through point *J*(5, –2) with slope 3.

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9. Write an equation in point-slope form of the line through points (3, 8) and (5, 2). Use (3, 8) as the point (*x*1, *y*1).

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10. Write an equation for the horizontal line that contains point *E*(10, –2).

11. Write an equation in slope-intercept form of the line through points *S*(3, 6) and *T*(4, 4).

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12. Is the line through points *P*(–1, –9) and *Q*(3, –5) parallel to the line through points *R*(–4, –1) and *S*(–5, –4)? Explain.

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13. Which two lines are parallel?

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| I. II. III.  | 1. I and II
2. I and III
3. II and III
4. No two lines are parallel.
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14. Write an equation for the line parallel to *y* = 4*x* + 2 that contains *P*(5 –5) in point-slope form.

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15. Write an equation for the line perpendicular to *y* = –4*x* –9 that contains (–7, 3) in point-slope form.

16. Give the slope-intercept form of the equation of the line that is perpendicular to –5*x* + 7*y* = 11 and contains

 *P*(–1, –10).

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17. Each unit on the map represents 5 miles. What is the actual distance from Oceanfront to Seaside?



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18. Find the midpoint of **

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19. Draw and classify the polygon with vertices E(-4, 1), F(-2, 3), and G(-2, -4). Find the area and perimeter of the polygon.

20. Find the coordinates of the midpoint of the segment whose endpoints are *H*(8,6) and *K*(12, 10).