Test 1 Review

Name _____ Date _____

1. Find the average rate of change from $x = 1$ to $x = 3$ for $f(x) = x^2 + 3$.

Find the slope.

2. $(-9, 5)$ $(9, 1)$

3. Find the missing coordinates, so that each point is on the line: $x + 6y = 6$.

   $(12, \ )$ $(\ , -3)$ $(0, \ )$

4. Find the slope of the line: $-5x + y = 1$.

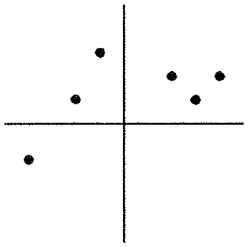
Write the equation of the line.

5. passes through $(2, 4)$ and $(-1, 7)$

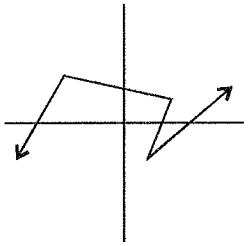
6. Write the equation of the line that contains $(-5, 1)$ and is perpendicular to the line $y = \frac{5}{2}x + 2$.

Which of the following represent a function?

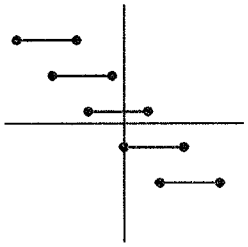
7.



8.

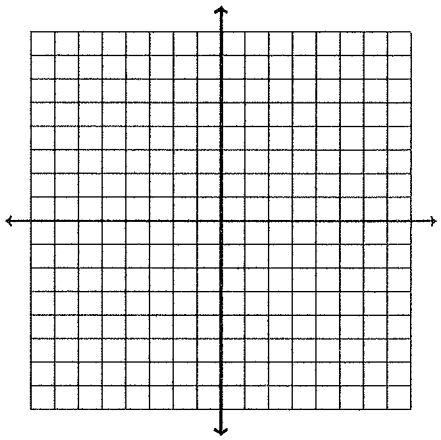


9.



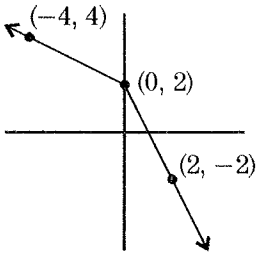
Graph.

10. $f(x) = \begin{cases} 3x + 2, & \text{if } x \geq 1 \\ 5x, & \text{if } x < 1 \end{cases}$



Write the equation of the graph.

11.



12. Find the domain of the function $y = \dfrac{1}{x + 2}$.

13. Find the domain of $f(x) = \sqrt{2x + 3}$.

14. Also: textbook review 2.5: p.83: 16 and old quizzes and homework.