

Algebra 2 Section B1 Worksheet

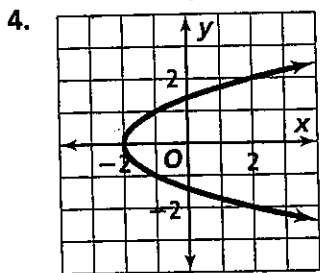
For each function, find $f(-2)$, $f(-\frac{1}{2})$, $f(3)$, and $f(7)$.

1. $f(x) = 5x + 2$

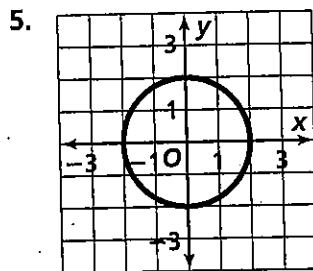
2. $f(x) = -\frac{1}{3}x + 1$

3. $f(x) = -3x + 1.8$

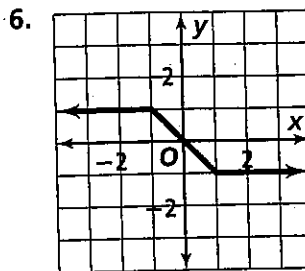
Use the vertical line test to determine whether each graph represents a function. Also, find the domain and range.



Domain:
Range:



Domain:
Range:



Domain:
Range:

Graph each relation. Find the domain and range. Also, determine if relation is a function.

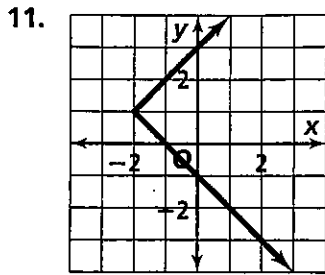
7. $\{(1, -2), (2, \frac{3}{4}), (3, 3\frac{1}{2}), (5, 9)\}$

8. $\{(-3, 5), (0, -2), (0, 4), (1, -2)\}$

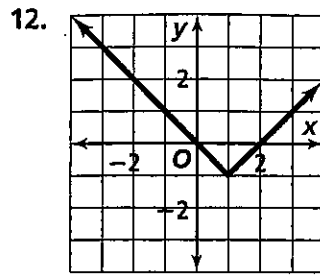
9. $\{(-1, 2), (2, 2), (3, 2)\}$

10. $\{(0.5, -1), (0.5, 0), (0.5, 1), (0.5, 3)\}$

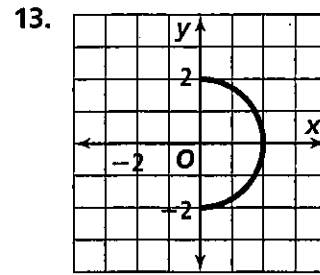
Determine if the relation is a function. Also, find the domain and range.



Domain:
Range:



Domain:
Range:



Domain:
Range:

Make a mapping diagram for each relation, and determine whether it is a function.

14. $\{(1, 2), (2, 3), (2, 4), (3, 5)\}$

15. $\{(-1, 1), (0, 0), (1, 1), (2, 4), (3, 9)\}$

Suppose $f(x) = -3x + 2$ and $g(x) = \frac{1}{2}x - 1$. Find each value.

16. $f\left(\frac{1}{3}\right)$

17. $3g(4)$

18. $\frac{g(-2)}{f(3)}$

19. $\frac{f(-1)}{g(5)}$