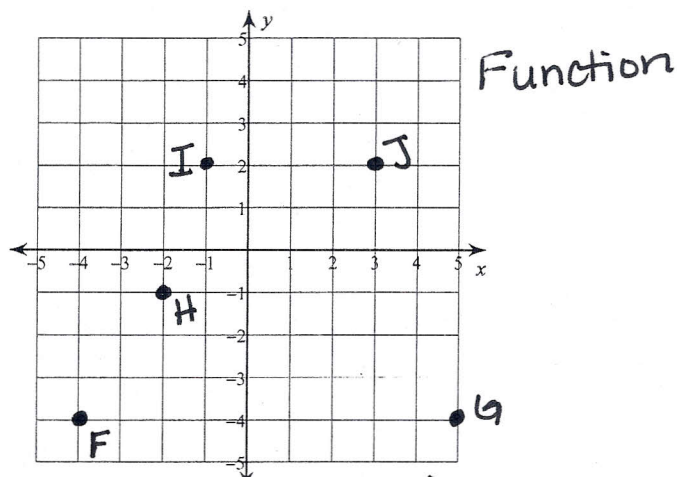


Module 3 Review Part 1

For each of the following relations, plot the points, state the domain and range, and determine if the relation is a function..

- 1)  $F(-4, -4)$   $G(5, -4)$   $H(-2, -1)$   
 $I(-1, 2)$   $J(3, 2)$



$D = \{-4, -2, -1, 3, 5\}$   
 $R = \{-4, -1, 2\}$

Evaluate each function.

3)  $k(x) = 2x - 2$ ; Find  $k(-10)$   
 $k(-10) = 2(-10) - 2$   
 $k(-10) = -20 - 2$   
 $k(-10) = \boxed{-22}$

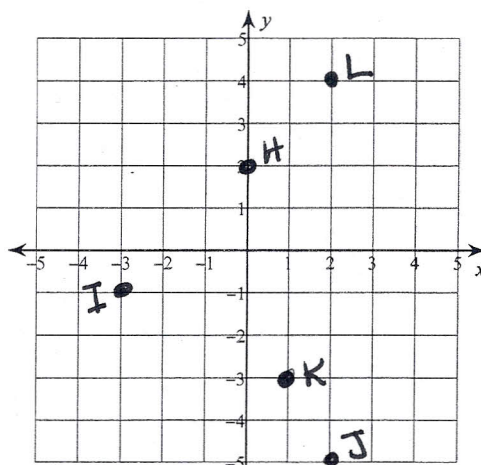
5)  $p(x) = x + 5$ ; Find  $p(7)$   
 $p(7) = 7 + 5$   
 $p(7) = \boxed{12}$

Perform the indicated operation.

7)  $f(x) = 3x - 2$   
 $g(x) = 4x - 2$   
 Find  $f(x) \div g(x)$   
 $\frac{f(x)}{g(x)} = \boxed{\frac{3x-2}{4x-2}}$

9)  $g(n) = 3n + 2$   
 $f(n) = 3n$   
 Find  $g(n) \cdot f(n) = (3n+2)(3n)$   
 $= \boxed{9n^2 + 6n}$

- 2)  $H(0, 2)$   $I(-3, -1)$   $J(2, -5)$   
 $K(1, -3)$   $L(2, 4)$



$D = \{-3, 0, 1, 2\}$   
 $R = \{-5, -3, -1, 2, 4\}$   
 NOT a Function

4)  $f(n) = 3n + 4$ ; Find  $f(-9)$   
 $f(-9) = 3(-9) + 4$   
 $f(-9) = -27 + 4$   
 $f(-9) = \boxed{-23}$

6)  $f(t) = 3t + 2$ ; Find  $f(6)$   
 $f(6) = 3 \cdot 6 + 2$   
 $f(6) = 18 + 2$   
 $f(6) = \boxed{20}$

8)  $f(x) = x - 5$   
 $g(x) = -3x - 5$   
 Find  $f(x) - g(x) = x - 5 - (-3x - 5)$   
 $= x - 5 + 3x + 5$   
 $= \boxed{4x}$

10)  $h(x) = 2x + 1$   
 $g(x) = 2x - 4$   
 Find  $h(x) + g(x) = 2x + 1 + 2x - 4$   
 $= \boxed{4x - 3}$