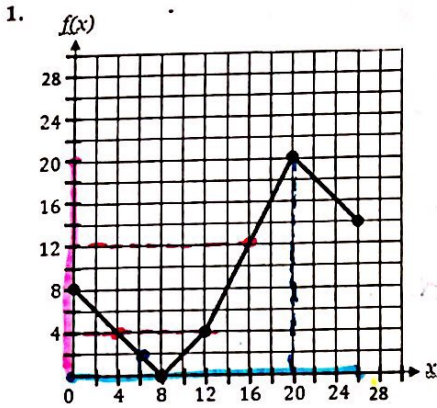
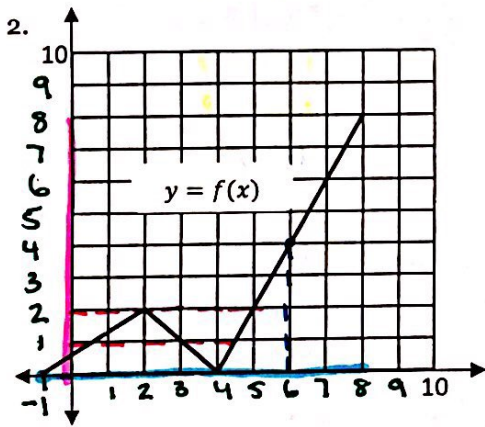


Function Notation Practice

Name: \_\_\_\_\_



- When  $x$  is 6, what is  $y$ ?
- What is the value of  $f(6)$ ?  $f(6) = 2$
  - What is the value of  $f(20)$ ?  $f(20) = 20$
  - When  $y$  is 12, what is  $x$ ?  
For what value(s) does  $f(x) = 12$ ?  $x = 16$
  - For what value(s) does  $f(x) = 4$ ?  $x = 4$   
 $x = 12$
  - What is the domain of  $f(x)$ ?  $[0, 26]$
  - What is the range of  $f(x)$ ?  $[0, 20]$



- What is the value of  $f(4)$ ?  $f(4) = 0$
- What is the value of  $f(6)$ ?  $f(6) = 4$
- For what value(s) does  $f(x) = 2$ ?  $x = 2$   
 $x = 5$
- For what value(s) does  $f(x) = 1$ ?  $x = \frac{1}{2}$   
 $x = 3$   $x = 4.5$
- What is the domain of  $f(x)$ ?  $[-1, 8]$
- What is the range of  $f(x)$ ?  $[0, 8]$

Find each function value using  $f(x) = 2x - 4$  and  $g(x) = 2x^2 + 1$

a.  $f(-10)$

b.  $g(-1) = 2(-1)^2 + 1$   
 $= 2(1) + 1$   
 $= 2 + 1$   
 $= 3$

c.  $x$  when  $f(x) = 18$   
 $18 = 2x - 4$   
 $+ 4$   
 $22 = 2x$   
 $11 = x$

d.  $x$  when  $f(x) = -12$

e.  $2f(3)$

$2(3) - 4$   
 $6 - 4$   
 $\rightarrow 2(2) = 4$

f.  $-1g(4)$

g.  $x$  when  $g(x) = 1$   
 $1 = 2x^2 + 1$   $x = 0$   
 $-1 = 2x^2 - 1$   
 $0 = 2x^2$   
 $0 = x^2$

h.  $x$  when  $f(x) = 9$

i.  $f(2) + g(3)$   
 $2(2) - 4$      $2(3)^2 + 1$   
 $4 - 4$          $2(9) + 1$   
 $0 + 19 = 19$

j.  $f(-10) + g(-1)$