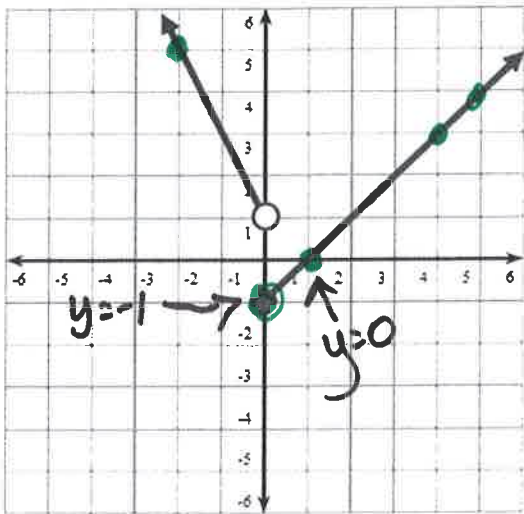


Name \_\_\_\_\_

# Practice 3



Identify the required information for the function.

- A) Maximum *There's NO maximum, it just goes forever.*
- B) Minimum *-1*
- C) Increasing Interval  *$[0, \infty)$*
- D) Decreasing Interval  *$(-\infty, 0)$*
- E) Domain  *$(-\infty, \infty)$*
- F) Range  *$[-1, \infty)$*
- G) Constant Interval *There is no constant interval.*

For the above function, calculate the following:

$f(1) = f(1) = 0$

$f(-2) = f(-2) = 5$

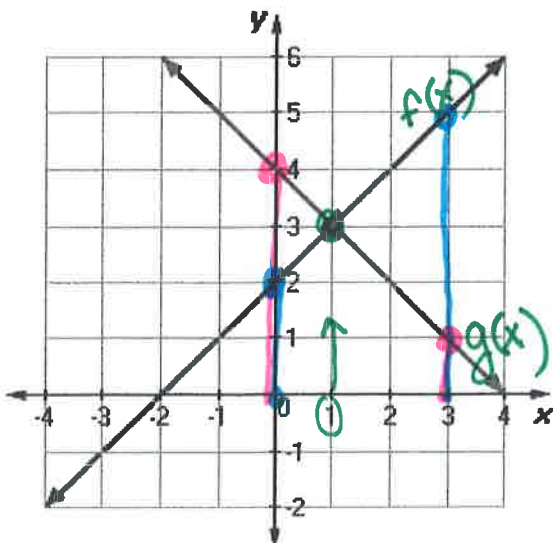
$f(4) = f(4) = 3$

$f(5) = f(5) = 4$

$f(0) = f(0) = -1$

$f(x) = -1$   
Find where  $y = -1$   $f(0) = -1$

$f(x) = 0$   
Find where  $y = 0$   $f(1) = 0$



Find  $f(1) = 3$

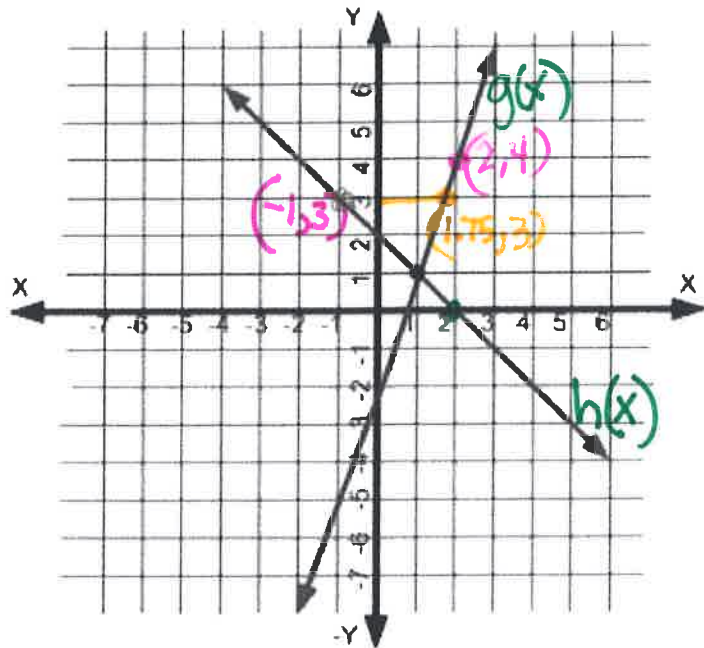
Find  $g(1) = 3$

Find  $f(1) + g(1) = 3 + 3 = 6$

Find the x value where  $f(x) = g(x)$   $(1, 3)$

Find  $f(0) + g(0) = 2 + 4 = 6$

Find  $f(3) + g(3) = 5 + 1 = 6$



Find where  $g(x) = h(x)$  (1.75)

Find  $h(2)$   $h(2) = 0$

Find  $g(2)$   $g(2) = 4$

Find  $h(2) + g(2)$   $0 + 4 = 4$

Find where  $h(x) = 3$   
So  $y = 3$   $h(-1) = 3$

Find where  $g(x) = 3$   
So  $y = 3$   $g(1.75) = 3$

Solve the literal equations:

$u = 2x - 2$  Solve for  $x$ .

$$\frac{u+2}{2} = \frac{2x}{2}$$

$$\frac{u+2}{2} = x \quad \text{OR} \quad \frac{1}{2}u + 1 = x$$

$\frac{g}{c} = \frac{ca}{c}$  Solve for  $a$ .

$$\frac{g}{c} = a$$

$\frac{12am}{12m} = \frac{4}{12m}$  Solve for  $a$ .

$$a = \frac{4}{12m}$$

$a = \frac{1}{3m}$  simplify the  $\frac{4}{12}$  part

$9 \cdot \frac{3x-y}{9} = z \cdot 9$  Solve for  $x$ .

$$\frac{3x-y}{9} = \frac{9z}{9}$$

$$\frac{3x-y}{9} = z$$

$$\frac{3x}{3} = \frac{9z+y}{3}$$

$$x = \frac{9z+y}{3}$$