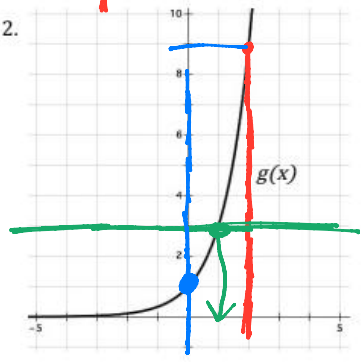
For each function, find the indicated values.

1. *Given:* $h(t) = 2t - 5$

a. $h(-4) =$ -13 b. $h(t) = 23$, $t =$ 14 c. $h(13) =$ 21 d. $h(t) = -33$, $t =$ -14

t=-4 plug in 2(-4)-5 | 2t-5=23 +5 +5 | plug in 2(13)-5 | 2t-5=-33 +5 +5 t=-14

2.

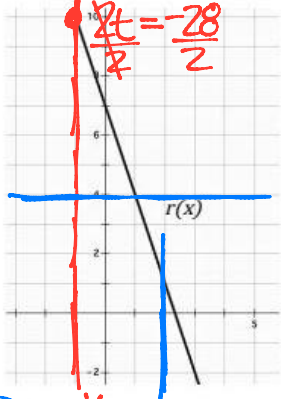


X=2 a. $g(2) =$ 9 y=3

b. $g(x) = 3$, $x =$ 1

X=0 c. $g(0) =$ 1

3.



inside ( ) x outside = y

X=-1 a. $r(-1) =$ 10 y=4

b. $r(x) = 4$, $x =$ 1

X=2 c. $r(2) =$ 1

4)

Given the following equations, perform the operations that are required.

$f(x) = 4x - 1$ $g(x) = \frac{1}{2}x^2 + 4$ $h(x) = -3$ $j(x) = -3x + 5$

a. f(-1) + j(2)

4x-1 -3x+5

4(-1)-1 -3(2)+5

-5 + -1 = -6

b. f(0) – h(0)

4x-1 -3

4(0)-1 -3

-1 - -3 = 2

c. j(x) = -4, what does x = 3

-3x+5=-4

-5 -5

-3x=-9

-3 -3

x=3

d. f(x) + j(x)

4x-1+-3x+5

x+4

e. j(x) – f(x)

-3x+5-(4x-1)

-3x+5-4x+1

-7x+6

f. f(x) = 7, what does x = 2

4x+1=7

-1 -1

4x=8

4 4

x=2

g. f(x) = -5, what does x = -1

-5=4x+1

+1 +1

-4=4x

4 4

x=-1

h. h(x)*j(x)

-3(-3x+5)

9x-15

5. Use the graph to answer the following questions.

a. Where does $f(x) = g(x)$?

x=4 (2,5)

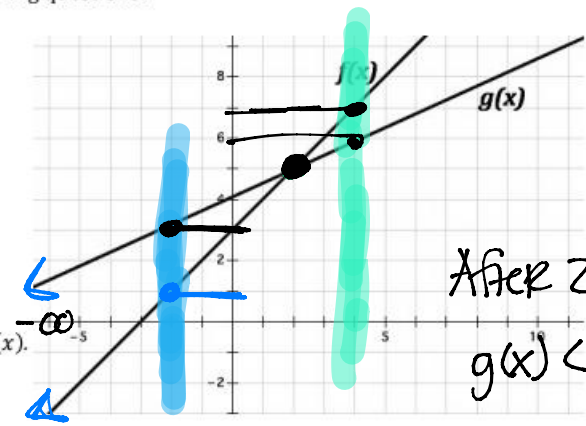
b. What is $f(4) + g(4)$?

7+6=13

x=-2

c. What is $g(-2) - f(-2)$?

3-1=2



After 2

g(x) < f(x)

-∞

d. State the interval where $g(x) > f(x)$.

above, on top

(-∞, 2) only x-values

6. Use the graph to answer the following questions.

a. Where is $r(x) > h(x)$?

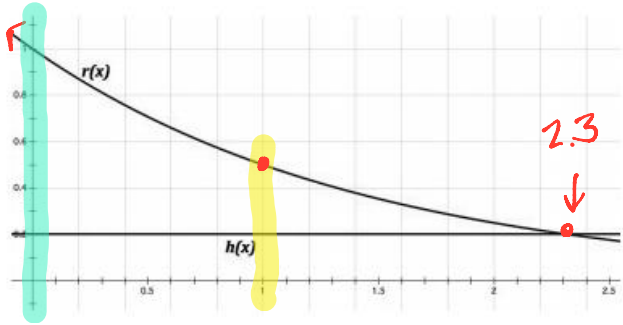
(-∞, 2.3)

b. What is $r(1) - h(1)$?

0.5 - 0.2 = 0.3

c. What is $r(0) + h(0)$?

1 + 0.2 = 1.2



7. How do you know if something is a function or not? Explain for the following examples.

a. Table

Number of gumballs	Cost
5	10¢
10	20¢
15	30¢
20	40¢

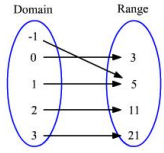
No x values repeat

b. Scenario

Susan puts exactly $5 a week into her piggy bank. She starts with $14 and wants to see how much she can save if she doesn't ever spend it.

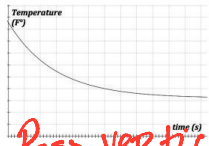
No x values repeat

c. Mapping



No x-values repeat only 1 arrow from x

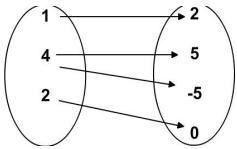
d. Graph



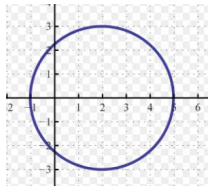
Pass vertical line test

**Be sure you EXPLAIN in WORDS!

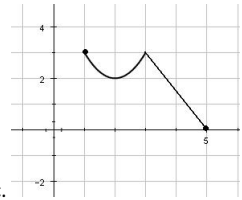
8. Find the domain and range for the following. Be sure to watch the brackets and parentheses.

a. 

Dom: Range:

b. 

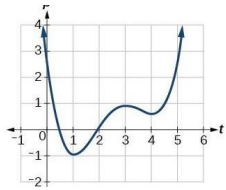
Dom: Range:

c. 

Dom: Range:

d. The distance a runner run per day versus the time spent running.

Dom: Range:

e. 

Dom: Range:

9. Swine Flu is attacking Porkopolis. The function below determins how many people have swine flu where *t*=time in days and *S*=the number of people in thousands.

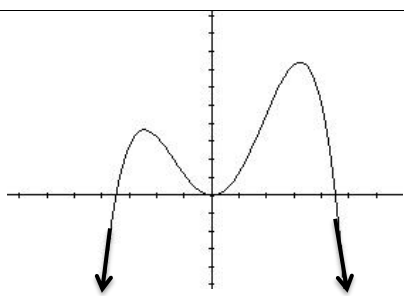
$S(t) = 9t - 4$

a. Find S(4).

b. What does S(4) mean?

c. Find t when S(t) = 23 mean.

d. What does S(t) = 23 mean?

Domain	Range	x-intercepts	y-intercepts
Increasing:		Decreasing:	Function?
		Constant:	End Behavior $x \to -\infty$ $x \to \infty$ $y \to$ $y \to$
Maximums: Absolute Relative		Minimums: Absolute Relative	