**Unit** **3** **Test** **Review** If you complete this, you should do stellar on the test!! **Name**:

Think positive thoughts….but also read ALLLLLL the directions!

1. Answer all the questions to the right to the best of your ability. Be sure you use your flipbook if you are still stuck!



|  |  |
| --- | --- |
| Domain | Range |
| x-intercept(s) | y-intercept |
| Absolute max: | Absolute min:  |
| Relative max:  | Relative min: |
| Increasing: | Decreasing: |
| Constant: | End behavior: |
| Function? | Continuous? Discrete?Discontinuous?  |



1. f(0) = \_\_\_\_\_\_\_ b. f(1) = \_\_\_\_\_\_\_\_
2. f(-2) = \_\_\_\_\_\_\_ d. f(2) = \_\_\_\_\_\_\_\_
3. f(x) = 4, x = \_\_\_\_\_\_\_
4. f(x) = 0, x = \_\_\_\_ & \_\_\_\_\_\_
5. f(x) = 3, x = \_\_\_\_ & \_\_\_\_\_\_\_
6. Tell if the following are functions or not. **Explain** how you know if it is or not? Use words here!
7.  b.  c.  d.

Jenny is watching her credit card bill. Each month she pays $500 to it but then charges another $600 to it.

1. The average salary of a garbage man (in thousands) from 1985 to 2001 is represented by the function

$f(x)=145x+192$ where **x** is the **number** of **years** since 1985.

1. Find the value of **f(5).** **Explain** what the number means in terms of the problem.
2. Find the value of **x** when **f(x) = 1000.** **Explain** what this means in terms of the problem.
3. Find the value of **f(10). Explain** what the number means in terms of the problem.
4. Find the value of **x** when **f(x) = 1500. Explain** what this means in terms of the problem.
5. Given $f(x)=-10x-9 and j(x)=7x+4$ answer the following.

|  |  |  |  |
| --- | --- | --- | --- |
| a. f(x) + j(x)  | b. f(0) + j(2) | c. j(-3) – f(-3)  | d. j(x) – f(x) |

1. Write **out** all the **definitions** for the following words.
	1. Domain b. Range c. x-intercept d. y-intercept
2. Absolute max f. Absolute min g. Relative max h. Relative min
3. End behavior k. Constant m. Increasing n. Decreasing
4. Given the following graph, answer the following questions.
	1. When is f(x) > g(x)?



* 1. Where is f(x) = g(x)?



* 1. What is the value of f(2) + g(0)?
1. Label the end behavior for the following graphs. Be sure you watch your negatives and positives.

 

$$x\rightarrow -\infty , y\rightarrow $$

$$x\rightarrow \infty , y\rightarrow $$

$$x\rightarrow -\infty , y\rightarrow $$

$$x\rightarrow \infty , y\rightarrow $$

 

$$x\rightarrow -\infty , y\rightarrow $$

$$x\rightarrow \infty , y\rightarrow $$

$$x\rightarrow -\infty , y\rightarrow $$

$$x\rightarrow \infty , y\rightarrow $$

1. How do you know if something is a function or not? What are the two main things that you need to test/know in order to prove something a function or not?