**You must show work/explain EVERY question, even the multiple choice questions.**

**Multiple Choice: [2] points each.**

1. The accompanying histogram shows the heights of the students in Kyra’s health class.

 What is the total number of students in the class?

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | 5 | 3) | 16 |
| 2) | 15 | 4) | 209 |

 1.)\_\_\_\_\_\_\_\_\_

 2.) Which statement is true about the data set 3, 4, 5, 6, 7, 7, 10?

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | mean = mode | 3) | mean = median |
| 2) | mean > mode | 4) | mean < median |

 2.)\_\_\_\_\_\_\_\_\_

 3.) What is the value of the *y*-coordinate of the solution to the system of equations  and ?

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | 6 | 3) | 3 |
| 2) | 2 | 4) | 5 |

 3.)\_\_\_\_\_\_\_\_\_

4.) In a linear equation, the independent variable increases at a constant rate while

 the dependent variable decreases at a constant rate. The slope of this line is

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | zero | 3) | positive |
| 2) | negative | 4) | undefined |

4.)\_\_\_\_\_\_\_\_\_

 5.) If , then  equals

|  |  |  |  |
| --- | --- | --- | --- |
| 1) | -36 | 3) | -6 |
| 2) | 6 | 4) | 185.)\_\_\_\_\_\_\_\_\_ |

**![[image]]()Short Answer: [5] points each.**

1.) Find the solution(s) to the equation $x+3=x^{2}-x$

f(x)= g(x)=

|  |  |
| --- | --- |
| x | y |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| x | y |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

State the solution(s) to the equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.) Twenty-five people were attending an event. The ages of the people are indicated below:

3, 3, 4, 4, 4, 4, 5, 6, 6, 6, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 16, 17, 22, 22, 25

* 1. Create a histogram of the ages using the provided axes.



0 -

 30 - 34

 25 - 29

 20 - 24

 15 - 19

 10 - 14

 5 - 9

 0 - 4

**Age (years)**

* 1. Would you describe your graph as symmetrical or skewed? Explain your choice.

c. Identify a typical age of the twenty-five people who were attending the event.