**Change the following into appropriate mathematical statements (expressions, equations, or inequalities).**

1.) Five less than the square root of a number ***y***. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.) Twenty more than five times a number ***x*** is equal to one hundred. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.) The quotient between ***a*** and ***b*** is at least seventeen. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4.) The cube of a number ***w*** is more than the sum of a number ***f*** and 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Simplify the following expressions. If your answer is not an integer, express it as reduced fraction.**

5.)  6.)  7.)  8.) 

**Solve the following inequalities and graph the solutions on a number line.**

9.)  10.) 





**Solve the following systems of linear equations. Use only the method listed with each.**

11.)  12.) 

Substitution Method Elimination Method

**In the following problems, solve the equations. If your answer is not an integer, express it as reduced fraction.**

13.)  14.) 

15.)  16.) 

17.)  18.) 

**Factor the following quadratic expressions.**

19.)  20.) 

**Factor and solve.**

21.)  22.) 

Each of the following problems contains a line in 3 forms: a table of values, an equation, and a graph. One or more parts is missing from each problem. Complete any of the missing information for each.

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem #** | **Table of values *(x,y)*** | **Equation (*y = mx + b* form)** | **Graph** |
| 23.) | |  |  | | --- | --- | | x | y | | -2 |  | | -1 | -1 | | 0 | 1 | | 1 |  | | 2 | 5 | |  |  |
| 24.) | |  |  | | --- | --- | | x | y | |  |  | |  |  | | 0 | -4 | |  |  | |  |  | |  |  |
| 25.) | |  |  | | --- | --- | | x | y | | -4 |  | | 0 |  | | 4 |  | |  |  |