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

1.) Ten less than the product of three and ***x*** is greater than twenty. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

2.) 

**Solve the following systems of linear equations.**

3.) 

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

4.)  5.) 

**Solve the following inequality and graph the solution on the number line provided.**



6.) 

**Factor the following quadratic expressions.**

7.) 

**Factor and solve.**

8.) 

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.

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem #** | **Table of values** ***(x,y)*** | **Equation** **(*y = mx + b* form)** | **Graph** |
| 9.) |

|  |  |
| --- | --- |
| x | y |
| –4 |  |
| –2 |  |
| 0 |  |
| 2 |  |
| 4 |  |

 |  |  |

|  |
| --- |
| Scoring Rubric |
| # | Topic(s) | Points |
| 1 | Words 🡪 Equations, expressions, inequalities | Vocab (Product = Multiplication)Less than 🡪 After 3x not before (3x -10 vs 10-3x)Inequality symbol (>) |
| 2 | Order of operations | Exponent with negative (not 5+9)Proper order in numerator (36)Subtraction before addition in denominator (6 not 2) |
| 3 | Systems of 2 linear equations | Method chosen (elimination or substitution both work here)If substitution, correct signs and subIf elimination, correct signs to cancelSolving for both variables, not just one |
| 4 | Solving single variable linear equations | Distributive property correctly appliedIsolated variableSolved and reduced fraction solution |
| 5 | Solving single variable linear equations | Combine like termsCorrect order to solve |
| 6 | Linear inequality  | Isolated variableSwapped inequality when dividing by negative numberGraphed correctly with closed circle and proper direction |
| 7 | Factoring quadratic polynomials | Leading coefficient of 1Correct factor pairAnswer in factored form |
| 8 | Factoring quadratic polynomials | Leading coefficient of not equal to 1Correct factor pairAnswer in factored form |
| 9 | Factoring and solving quadratic polynomials | Leading coefficient of 1Correct factor pairWritten in factored formSolutions listed after factoring with correct signs |
| 10 | Linear functions and slope | Calculated slopeIdentified y-interceptWritten in slope-intercept formOrdered pairs listed including one that would not fit on graph |