1. Order of operations: Simplify ****

2. Answer by circling ‘true’ or ‘false’ depending on whether the statement is ‘right’ or ‘wrong’ (or list the true/false on paper you upload)

a) 5.2222is an irrational number.True or False

b)  is a rational number. True or False

****

c) π is an irrational number.True or False

d) All real numbers are rational. True or False

e) The slope of a vertical line is zero. True or False

f)  is a function. True or False

3. Number Theory.

|  |  |
| --- | --- |
| List all the factors of 18. | Find the LCM of 42 and 36. |
| Find the GCF of 105 and 60. | Express 60 as a product of prime factors:  (prime factorize) |

4. Solve the equations:

|  |  |
| --- | --- |
| 4(3x − 7) + x = 9 − 2x |  |

5. Solve the inequality algebraically and also show the solution on the number line.

5x + 3(x + 1) 2x − 9



6. Solve the System. Show steps to the solution. Express the solution in the form (a,b).

7. Solve the linear application. Be sure to follow the steps of

* defining variables in terms of the data
* showing steps in the solution
* answering the actual question (not just giving the value of x).

350 people attended the opening performance of the FIC marching band. Lower level tickets sold for $50 each and upper level tickets were $40 each. How many of each type of ticket were sold if the gross receipts were $16 000?

8. Consider the function f(x) = x² −7x + 4

Evaluate, expressing the solution as simply as possible.

|  |  |
| --- | --- |
| f(3) | f(m + 1) |
| f | f() |

9. Find the equation of each line given data:

|  |  |
| --- | --- |
| Perpendicular to the line and passes  through the point (−10,3) | Parallel to the line  passing through the point (2 , −6). |

10. Graph.

|  |  |
| --- | --- |
| y = | http://wikieducator.org/images/c/c8/Cartesian-Plane.png |

|  |  |
| --- | --- |
|  | http://wikieducator.org/images/c/c8/Cartesian-Plane.png |

10. Circle the function that is represented by the graph.

|  |  |
| --- | --- |
|  | 1. y = 2. y = 3. y = 4. y = 3x + 1 5. y = 3x − 3 6. y = 7. y = |