All fractions should be written as improper fractions in simplest form. **SHOW ALL WORK** (use another piece of paper)**.**

1) Use the order of operations to evaluate the expressions:

a) $7 + 6 \cdot 3 - 3$ b) $3 + 7(2^3 - 6)^2$ c) $4 + (-3)^2 - 2 \div \left(\frac{6}{3}\right)$

1a)_____

1b)_____

1c)_____

2) Evaluate the expressions by substituting for the variable:

a) $x^2(7 - x) + 2$ when $x = 5$ b) $2x^2 - 4$ when $x = -4$ c) $10 \div (2x)$ when $x = -\frac{5}{4}$

2a)_____

2b)_____

2c)_____

3) Solve the equations:

a) $5x - 3 = 22$ b) $\frac{2}{3}x + 3 = 7$ c) $7x - 5 = 2x + 5$

3a)_____

3b)_____

3c)_____

4) Simplify the expressions WITHOUT converting fractions to decimals:

a) $-10 + 2$ b) $-\frac{2}{3} \ -\frac{3}{4}$ c) $\frac{4}{7} \cdot \frac{21}{2} \div \frac{3}{4}$

4a)_____

4b)_____

4c)_____

5) Combine like terms:

a) $2x - 7y + 3x - 18z + 3y + 2z$ b) $6x^5 + 3x^5 - 4x^2 - 2x^5 + 7x^2$

5a)_____

5b)_____

6) Simplify the absolute value expressions:

a) $|-25|$ b) $-|65|$ c) $|24 - 50|$

6a)_____

6b)_____

6c)_____

7) Find the opposite number:

a) -13 b) 106 c) -x

7a)_____

7b)_____

7c)_____

8) Write an algebraic expression for the following verbal expressions:

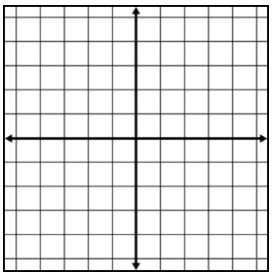
a) Four less than twice a number b) The quotient of three times a number and 10

8a)_____

8b)_____

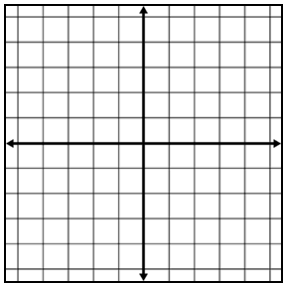
9) Graph a line that contains all the points in this table of ordered pairs:

x	y
-4	-2
0	0
2	1



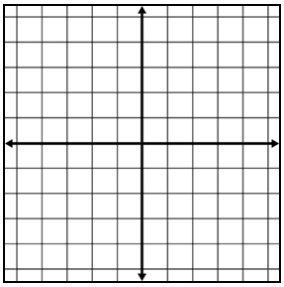
9) (see left)

10) Draw a line segment that connects points (2, 3) and (-3, -2).



10) (see left)

11) Graph the line by making a table of values:
$y = 2x + 1$



11) (see left)

12) Which of the following is **not** a perfect square?
a) 49 b) 64 c) 81 d) 99

12)_____

13) Simplify the expressions by distributing:

a) $4(x + 5)$ b) $-2(x - 3)$ c) $x(x - 4)$

13a)_____

13b)_____

13c)_____

14) Simplify the expressions:

a) $\frac{4x^2y^{10}z^3}{8xy^3z^4}$ b) $(2x^2y^4)^2$ c) $(2pq^2r^3)(5q^3r^4s)$

14a)_____

14b)_____

14c)_____

15) A student in Mrs. Grieser's class has the following test scores (round to the nearest hundredth if necessary):

85, 92, 78, 87, 92, 86, 88

Find the mean, median, and mode of the data.

15)
mean=_____
median=_____
mode = _____