Name: _____

Paper HW #3 Due 9/1/15
M110 WLA

***Instructions:*** *Complete these problems for homework due on the 2nd night of class. These should look very similar to those that were covered during our 3rd class meeting. This is material on §1.4-2.3.*

1. List All Factors of: 24 & 18

2. Give Prime Factorization (using exponential notation) of: 24 & 18

3. Find the least common denominator (LCD) using prime factors: 24 & 18

4. Reduce &/or change to a mixed #: $\frac{24}{18}$

5. Add. Simplify if necessary (reduce &/or change to a mixed #). Fractions must be used & work shown.

$$^{5}/_{24} + {}^{1}/_{18}$$

6. Multiply/Divide. Simplify if necessary (reduce &/or change to a mixed #). Fractions must be used & work shown.

$$^{3}/_{4} \div 1\,{}^{4}/_{5}$$

7. Translate the following into an algebraic expression or equation. Let x = # in each case.

a) The product of five and a number _____

b) Three more than twice the number _____

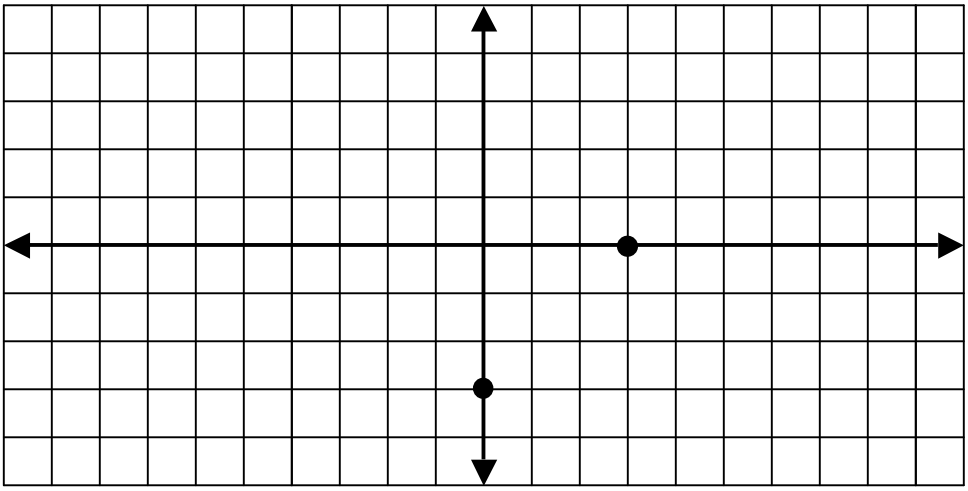
c) The quotient of 15 and a number _____

d) A number subtracted from twenty-one _____

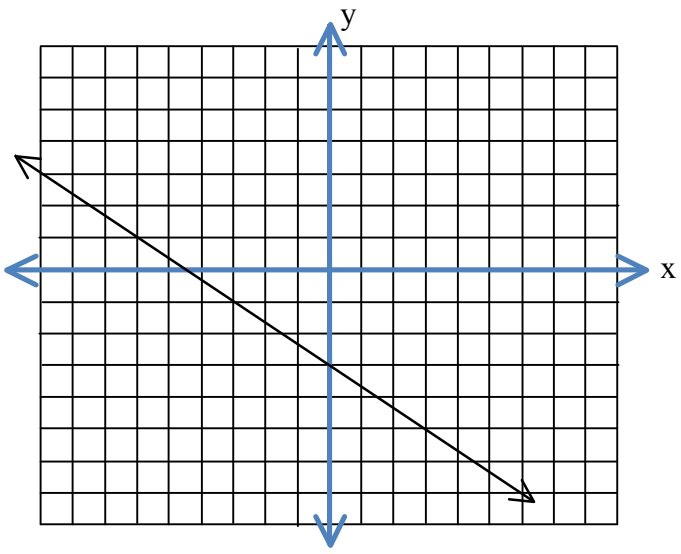
9. Label the Rectangular Coordinate System with the following elements:

a) origin (use the correct ordered pair)
b) four quadrants using correct notation
c) the x & y axes
d) up to positive and negative 5 on both axes (assume each line is 1 unit)
e) the following ordered pairs: (-2,5) ; (6,-4) ; (1,2) ; (-7,-4)
f) the two points shown on the axes with the correct ordered pairs

g) Give the x-intercept labeled below as an ordered pair here. _____



10. Use the linear model below and give:




a) The y-intercept as an ordered pair. Put it on the graph too, with a point & ordered pair.

_____

b) Find y when x = -3. Put it on the graph too, with a a point & ordered pair.

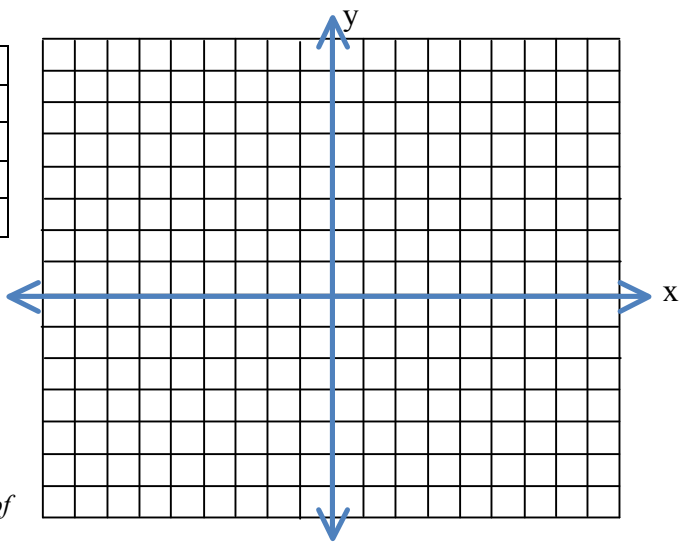
_____

c) Find x when y = 3. Put it on the graph too, with a a point & ordered pair.

_____

11. My car gets 50 miles per gallon of gas. Complete the table below showing how many miles I can go on the given number of gallons of gas. Show work below and create the scattergram for the data.

| Number of Gallons of Gas | Number of Miles |
|---|---|
| 1 | |
| 3 | |
| 5 | |
| g | |




***Note:** You should be able to create a scattergram for this data, make a linear model, predict how many miles I could go on 11 gallons of gas, and be able to find and interpret the y-intercept of the model.*

13. Simplify: a) $-|-(-9.3)|$ b) $|-\frac{2}{3}|$ c) $|-90 + 27|$

14. Add the following. Show all work. Fractions use fractions. Decimals use decimals.

a) $-7.3 + -9.8$ b) $3.52 + -8.2$ c) $-\frac{5}{12} + -\frac{5}{6}$

d) $\frac{11}{24} + -\frac{7}{36}$ e) $-7\frac{1}{5} + 13\frac{5}{7}$ f) $(-8\frac{1}{3})(\frac{4}{5})$

g) $-2 \div -\frac{11}{14}$ h) $(0.11)(0.11)$ i) $-1.72 \div 0.05$