Preparedness Survey

Name:_____ /36

Part A: Number Sense and Algebra. (9 marks)

1. Evaluate:

   a. -4 + 3 + 9 – 5

   c. -4(3-8) + 6 ÷ (- 2)

   e. $\frac{-7}{5} - 2 + \frac{1}{3}$

   b. 0.234 + 5 – (-1.47)

   d. $-2\frac{1}{3} \times \frac{5}{8} \div \frac{7}{6}$

2. To print a school newspaper, it costs $0.19 a paper for the first 100 papers printed, $0.15 each for the next 200 papers and $0.085 for each paper after that.

   a. What is the cost of printing 940 papers?

   b. What should be the selling price of each newspaper in order for the school to earn a 70% profit? (Round your answer to the nearest cent and assume all papers will be sold)

Part B: Operating with Exponents. (9 marks)

1. Evaluate:

   a. 6^3

   b. $(-3)^3$

   c. $\left(\sqrt{12}\right)^2$

2. Simplify:

   a. $(x)^7 (x)^5$

   c. $\frac{a^{10}}{a^4}$

   e. $(m^3)^5$

   b. $(3x^8)(2x^3)$

   d. $(-5x^5)^2$

   f. $\frac{24y^6}{-4y^2}$

Part C: Algebra and Equations. (11 marks)

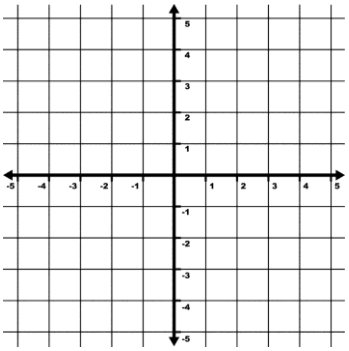
1. Simplify:
   a. $3x - 12x + 15x$ b. $(4x^2 - 2y) - (9x^2 + 6y)$ c. $3x - 2(4x - 5y)$

2. Solve:
   a. $3x - 14 = 1$ c. $3(y + 2) = y - 4$ e. $\frac{x}{2} + \frac{x}{3} = 8$

   b. $4 = \frac{3}{2}x - 8$ d. $\frac{2x}{3} - 4 = 5 + \frac{x}{4}$

Part D: Analytic Geometry. (7 marks)

1. Sketch a line with a slope of -2/3 and y-intercept of -3. Write the equation of the line.



2. Determine the x and y intercepts of the equation $3x - 2y = 12$

3. Find the equation of the line passing through the points A(3,-2) and B(1,4)