

Name: _____

(20 points) Books, notes, and calculators are **not** allowed. *Show all your work and clearly indicate your answers.* Good Luck!

Simplify the following complex fractions

1. (3 pts) $\frac{\frac{x-y}{1} - \frac{1}{y}}{x}$

Solve the following equations for x .

2. (3 pts) $2x - 3 = 4(x - 5)$

3. (3 pts) $\frac{1}{x-2} + 2 = \frac{1}{3}$

4. (4 pts) The cost to the retailer of a tv is \$85.

(a). If the markup is 48% of the cost, what is the selling price?

(b). If the markup is 48% of the selling price, what is the selling price?

5. (4 pts) A taxi charges an initial fee of \$1.75. Then each mile driven costs another \$2.10.

(a). Let x be _____ and write an expression for the number of dollars the taxi ride costs

(b). How much would you pay to ride 2.5 miles?

(c). If the taxi driver charges you \$13.30, how far did you ride in the taxi?

6. (3 pts) Given $R(x) = 2x^2 + x$

(a). Find $R(-1)$

(b). Find and simplify $R(x + 1)$