

Name: _____

Date: _____

**Algebra 1
Final Exam Study Guide**

Solving Linear Equations (includes absolute value)
Solving Linear Inequalities (includes absolute value)
Graphing Linear Equations and Inequalities
Systems of Equations
Probability

The following problems in the textbook should help you in studying for your final exam.

Chapter 3	Pages 190 – 191	9-21 odds
Chapter 4	Page 244	23-30 odds
Chapter 6	Pages 384-385	1-9 odds 13-21 odds
Chapter 7	Pages 440-442	1-17 odds 27 & 29

All Answers to the odd problems are found in the back of your text book.

Solve the following word Problems

- 1.) A car rental company charges \$39.99 per day. The first 50 miles are free, but there is a charge of \$0.28 per mile after 50 miles. Write an inequality to determine the greatest number of miles that you can drive for \$55 or less.*

- 2.) The cost of 12 oranges and 7 apples is \$5.36. 8 oranges and 5 apples cost \$3.68. what is the cost of each orange?*

- 3.) One calculator costs \$3 and a box of pens costs \$5. The total amount spent was \$960. There were 5 times as many calculators sold than boxes of pens. How many calculators and boxes of pens were sold?*

- 4) Three times a number plus twice a second number is 41. Also, four times the first plus five times the second is 71. Find the numbers.*

5.) Suppose you bought supplies for a party. 3 rolls of streamers and 15 party hats cost \$30. Later you bought 2 rolls of streamers and 4 party hats for \$11. How much did each roll of streamers cost? How much did each party hat cost?

6.) Customers of a phone company can choose between two service plans for long distance calls. The first plan has a \$23 one-time activation fee and charges 10 cents a minute. The second plan has no activation fee and charges 15 cents a minute. After how many minutes of long distance calls will the costs of the two plans be equal?

7.) At the carnival, tickets for the rides are \$0.75 each, or you can buy an armband for \$15 and ride unlimited for one night. At how many rides does the armband cost the same as buying individual tickets?

8.) The perimeter of a rectangle must be greater than 24 inches. Let x represent the length of the rectangle and y the width. Perimeter is the sum of the lengths of the sides.

Write an inequality to represent the above situation.

Also the sheet done in class on probability and calculating your grades would be useful.