

## Chapter 7 Test Review

### Topics

Plotting ordered pairs  
Graphing functions using the point-plot method  
Evaluating functions  
Vertical Line Test  
Graphing lines using intercepts or the slope-intercept form  
Graphing horizontal & vertical lines  
Calculating slope given two points  
Knowing when the slope of a line is 0 or undefined  
Determining whether a parabola opens up or down & whether it has a max or min  
Using the vertex to determine the maximum or minimum of a quadratic function  
Finding the intercepts & vertex of a parabola  
Graphing parabolas  
Finding populations using exponential functions  
Matching the graphs of exponential functions to their equations  
Finding the value of  $e$  on your calculator  
Graphing exponential functions  
Checking whether an ordered pair is a solution to a system of equations  
Solving systems of equations by graphing, substitution, & addition  
Solving systems of equations with infinite or no solutions  
Finding where two lines intersect  
Graphing systems of linear inequalities  
Setting up & solving linear programming problems

### Formulas to memorize:

Slope-intercept form of a line:  $y = mx + b$

Slope of the line between two points:  $m = \frac{y_2 - y_1}{x_2 - x_1}$

Vertex of a parabola:  $x = \frac{-b}{2a}$

### Extra credit review problems (10 points, due when you take the test)

7.1: 4,15,17,19,22,34,40,49,56

7.2: 4,13,16,19,37,43,46

7.3: 1,5,11,22,27,44

7.4: 1,2,8,11,24 Give the value of  $e$  rounded to the nearest ones, tenths, hundredths, & thousandths place

7.5: 2,11,20,30,38,44,47,52

7.6: 8,31,33

7.7: 13

### General Info:

Be sure to show your work.

Bring a calculator to the test. You may not use your cell phone.

Please do not talk to anyone about the test who hasn't taken it yet, as there are two sections of this class.