This is your review guide for the Chapter 8.7-8.8 Quiz. These problems are from your notes, so look up the answers in your notes (or my notes at mrsspisak.weebly.com, S1 Algebra I page) to make sure you did the review problems correctly. Keep practicing until you can get all the answers correct in less than an hour☺

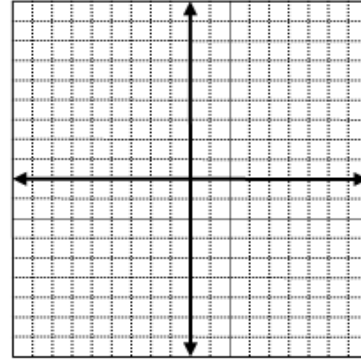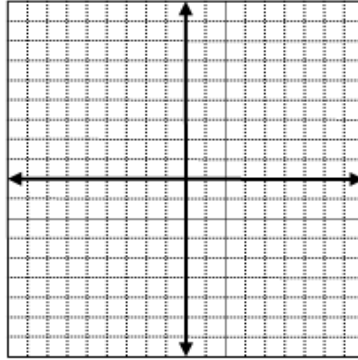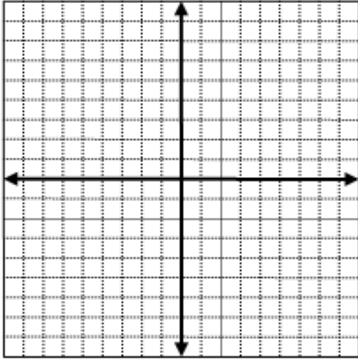Evaluate each exponential function for the domain {−2, 0, 3}.

$$y = 4^x \qquad\qquad y = 10(5)^x \qquad\qquad y = -2(3)^x$$

Graph each exponential function using the "Fab Five".

$$y = 0.5(2)^x \qquad\qquad y = -0.5(2)^x \qquad\qquad y = 2\left(\frac{1}{2}\right)^x$$

Write an exponential function for each situation. Then evaluate to answer the question. *Both the equation and the answer will be graded on the quiz!*

Suppose SJH has 1342 students this year and will continue to grow about 3.5% each year. What will be the student population 3 years from now?

In 1998, a certain town had a population of about 14, 500 people. Since 1998, the population has increased about 1.4% a year. Write an equation and evaluate it to tell the population in 2010.

Suppose your parents deposited $1500 in an account paying 8% interest compounded <u>annually</u> when you were born. Find the account balance after 18 years.

Suppose you deposit $100 in a college fund that pays 7.2% interest compounded <u>annually</u>. Find the account balance after 5 years.

Suppose your parents deposited $1500 in an account paying 8% interest compounded <u>quarterly</u> when you were born. Find the account balance after 18 years.

Suppose you deposit $100 in a college fund that pays 7.2% interest compounded <u>monthly</u>. Find the account balance after 5 years.

The half-life of iodine-131 is 8 days. A patient receives a 12-mCi treatment. How much iodine is left in the patient 32 days later?

In 1990, the population of Washington DC was about 604,000 people. Since then, the population has decreased about 1.8% each year. Find the projected population in 2010.

The worksheets for 8.7, 8.8 growth, Exponential Situations, Credit Card Catastrophe and Finding Exponential Models are extremely useful also!!!