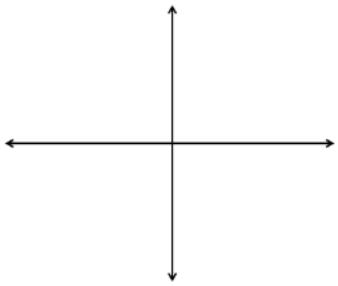
Concepts of Algebra 2 Notes **Section 7-2: Properties of Exponential Functions**

***Objectives:**

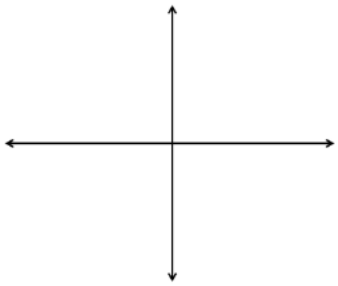
Transformations → $y = ab^{(x-h)} + k$

Got It? **1.** How does the graph of $y = -0.5 \cdot 5^x$ compare to the graph of the parent function?

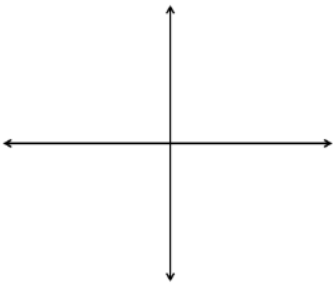


Got It? **2.** How does the graph of each function compare to the graph of the parent function?

a. $y = 4^{(x+2)}$



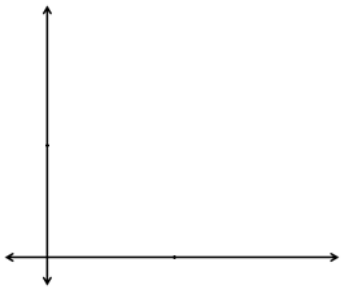
b. $y = 5 \cdot 0.25^x + 5$



*Families of Exponential Functions

Got It? **3. a.** Use the exponential model. How long does it take for the coffee to reach a temperature of 100 degrees?

Time (min)	Temp (°F)
0	203
5	177
10	153
15	137
20	121
25	111
30	104



*e =

*<u>natural base exponential function</u>:

Got It? **4.** How can you use a graphing calculator to calculate e^8?

*Continuously Compounded Interest

Got It? **5.** About how much will be in the account after 4 years of high school?

Scholarships **Suppose you won a contest at the start of 5th grade that deposited $3000 in an account that pays 5% annual interest compounded continuously.**

Inclass: p. 447-448 #20, 22, 30
Homework: p. 447-448 #7-29(odd)
Interactmath: #7, 8, 13, 18, 23, 24, 28, 30