### Lesson 11 Practice Problems

1. Select **all** expressions that are equal to .
2. Which expression has a greater value: or ? Explain how you know.
3. Andre says that because 55 is halfway between 10 and 100. Do you agree with Andre? Explain your reasoning.
4. An exponential function is defined by .
   1. Show that when increases from 1 to 1.25 and when it increases from 2.75 to 3, the value of grows by the same factor.
   2. Show that when increases from to , also grows by this same factor.

* (From Unit 4, Lesson 5.)

1. How many times does $1 need to double in value to become $1,000,000? Explain how you know.

* (From Unit 4, Lesson 8.)

1. What values could replace the “?” in these equations to make them true?

* (From Unit 4, Lesson 9.)
  1. What value of would make the equation true?
  2. Between which two whole numbers is the value of ? Explain how you know.
* (From Unit 4, Lesson 10.)

1. For each exponential equation, write an equivalent equation in logarithmic form.

* (From Unit 4, Lesson 10.)



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