Name: _____

Comparing Exponents

Write the numbers in standard form below each exponent.
Then compare using the symbols: <, >, and =.

example: 7^3 **<** 6^4
343 ***1,296***

Part 1: Try these without a calculator.
Remember to write the numbers in standard form below each exponent.

a. 3^3 _____ 2^5

b. 10^3 _____ 9^3

c. 5^2

e. 10

Part 2: Now try these with a calculator.
Remember to write the numbers in standard form below each exponent.

g. 7^5 _____ 8^4

h. 40^3 _____ 20^5

i. 9^6 _____ 12^4

j. 5^5 _____ 6^4

k. 100^3 _____ 50^4

l. 2^{10} _____ 4^8

ANSWER KEY

Comparing Exponents

Write the numbers in standard form below each exponent.
Then compare using the symbols: <, >, and =.

example: 7^3 **<** 6^4
343 *1,296*

Part 1: Try these without a calculator.
Remember to write the numbers in standard form below each exponent.

a. 3^3 **<** 2^5
27 **32**

b. 10^3 **>** 9^3
1,000 **729**

c. 5^2
25

e. 1C
100 **144** **64** **64**

Part 2: Now try these with a calculator.
Remember to write the numbers in standard form below each exponent.

g. 7^5 **>** 8^4
16,807 **4,096**

h. 40^3 **<** 20^5
64,000 **3,200,000**

i. 9^6 **>** 12^4
531,441 **20,736**

j. 5^5 **>** 6^4
3,125 **1,296**

k. 100^3 **<** 50^4
1,000,000 **6,250,000**

l. 2^{10} **<** 4^8
1,024 **65,536**