Cubes & Cube Roots

Name: _____ Div.: _____ Date: _____

Find the cube of each integer (show your work):

1) 1^3 _____ 2) 2^3 _____ 3) 3^3 _____

4) 4^3 _____ 5) 5^3 _____ 6) 6^3 _____

7) 7^3 _____ 8) 8^3 _____ 9) 9^3 _____

Using prime factorization determine if the following are perfect squares (check with a calculator):

10) $\sqrt[3]{64}$ _____ 11) $\sqrt[3]{27}$ _____ 12) $\sqrt[3]{216}$ _____

13) $\sqrt[3]{125}$ _____ 14) $\sqrt[3]{512}$ _____ 15) $\sqrt[3]{24}$ _____

16) $\sqrt[3]{54}$ _____ 17) $\sqrt[3]{128}$ _____ 18) $\sqrt[3]{135}$ _____

Write the **square** or **cube** of each number.

A. 4^2 = 4 x 4 = 16 9^2 = _____ 3^3 = _____

B. 6^3 = _____ 7^2 = _____ 15^3 = _____

C. 10^3 = _____ 5^3 = _____ 14^2 = _____

D. 20^2 = _____ 24^3 = _____ 19^3 = _____

E. 8^3 = _____ 13^2 = _____ 48^2 = _____

F. 17^2 = _____ 25^3 = _____ 37^2 = _____

Write the **cube** root.

J. 125 = 5^3 1,000 = ____ 64 = ____ 27 = ____ 8 = ____ 216 = ____

K. 512 = ____ 1,728 = ____ 2,744 = ____ 343 = ____ 8,000 = ____ 6,859 = ____

Use the chart on the back to determine which two whole numbers the non-perfect cube falls between:

$\sqrt[3]{200}$ is between _____ and _____.

$\sqrt[3]{4}$ is between _____ and _____.

$\sqrt[3]{1,058}$ is between _____ and _____.

$\sqrt[3]{65}$ is between _____ and _____.

$\sqrt[3]{2,201}$ is between _____ and _____.

Using your calculator and rounding to the nearest hundredth, write the cube root:

$\sqrt[3]{200}$ = _____

$\sqrt[3]{4}$ = _____

$\sqrt[3]{1,058}$ = _____

$\sqrt[3]{65}$ = _____

$\sqrt[3]{2,201}$ = _____