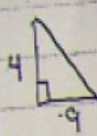


Class/Homework (Net 3 pages too)

Test Review

- 1) Evaluate  $\sqrt[3]{\frac{125}{8}}$  (No decimals)
- 2) Which roots lies between 5 and 6?  
 $\sqrt[3]{100}$ ,  $\sqrt[4]{16}$ ,  $\sqrt[3]{130}$ ,  $\sqrt{89}$
- 3) Which of these numbers is a rational number? (list them) How do you know?  
 $\sqrt{52}$ ,  $\sqrt[3]{-125}$ ,  $\sqrt{4.9}$ ,  $\sqrt{\frac{81}{36}}$
- 4) You can use a calculator. Determine which of these numbers is the least.  
 $\sqrt{28}$ ,  $\sqrt[3]{40}$ ,  $\sqrt[5]{301}$ ,  $\sqrt[3]{-83}$
- 5) Give an example of a number that is an integer but not whole? \_\_\_\_\_  
 Give an example of a whole number but is not an integer? \_\_\_\_\_  
 What number is a whole number but not natural? \_\_\_\_\_

6)  Find the value of  $d$ ? (Leave in radical form)

7) Write  $\sqrt[3]{648}$  in simplest form

8) Write  $\sqrt{605}$  in simplest form

9) Write a)  $4\sqrt[3]{7}$  , b)  $5\sqrt{10}$  as an entire radical

10) Write  $71^{\frac{3}{4}}$  as a radical (Do not evaluate)

11) Write each of the following as a power (do not evaluate)

a)  $(\sqrt[3]{6})^2$       b)  $(\sqrt[5]{11})^3$       c)  $\sqrt{\left(\frac{7}{9}\right)^3}$       d)  $\sqrt[5]{\left(\frac{5}{6}\right)^2}$

Page 2

Test Review

1) Write a)  $8.4^{0.75}$  as a radical (hit  $\rightarrow$  always change decimal radicals to fraction)  
 b)  $7.5^{1.25}$   $\leftarrow$  on test

3) Evaluate a)  $\left(\frac{343}{816}\right)^{\frac{2}{3}}$  b)  $\left(\frac{1024}{10807}\right)^{-\frac{3}{5}}$  c)  $125^{-\frac{2}{5}}$   
 without calculator use seeds.

4) Which power with a negative exponent is equivalent to  $\frac{1}{9}$ ?  
 a)  $3^{-2}$  b)  $3^{-2}$  c)  $2^{-3}$  d)  $(-2)^3$

5) For each of the following use laws of exponents. (Express all answers with positive exponents)

a)  $[(-3x^4y^2)(7xy^3)]^{-2}$  b)  $\left(\frac{x^7y^3z}{x^{11}yz}\right)^2$

c)  $\left(\frac{3x^4}{z^2}\right)^{-5}$  d)  $\frac{(4xy^2)(3x^2y^3)^4}{12x^{-4}y^3}$

e)  $\left(\frac{3a^{-7}b^5}{4}\right)^{-2}$