

Math 10C
Radicals

Name: _____

1. Simplify the following radicals .

a. $\sqrt{49}$

b. $\sqrt{12}$

c. $2\sqrt{32}$

d. $\sqrt[3]{81}$

e. $-4\sqrt{28}$

f. $5\sqrt{48}$

g. $\sqrt{162}$

h. $\sqrt[3]{54}$



2. Turn the following radicals into entire radicals.

a. $2\sqrt{6}$

b. $5\sqrt{3}$


c. $-3\sqrt[3]{2}$

d. $4\sqrt[3]{5}$

3. Rewrite the following with rational exponents.

a. $\sqrt{16^3}$

b. $\sqrt[3]{25^4}$



4. Rewrite the following as a radical

a. $5^{\frac{3}{2}}$

b. $\left(\frac{125}{8}\right)^{-\frac{2}{3}}$

5. Evaluate the following, show all the steps and leave the answer as an exact value.

a. $(-64)^{\frac{2}{3}}$

b. $\left(\frac{49}{16}\right)^{\frac{1}{2}}$

c. $(-8)^{\frac{2}{3}}$

d. $\left(\frac{81}{25}\right)^{\frac{1}{2}}$

e. $\left(\frac{64}{27}\right)^{-\frac{2}{3}}$