

Math 10C

Rational and negative exponents

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Rewrite the following with rational exponents.

a.  $\sqrt[5]{3^2}$

b.  $\sqrt{6^3}$

2. Rewrite the following as a radical.

a.  $7^{\frac{3}{2}}$

b.  $\left(\frac{4}{25}\right)^{-\frac{1}{2}}$

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

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

a.  $36^0$

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

c.  $\left(\frac{36}{25}\right)^{-\frac{1}{2}}$

d.  $4^{-2}$

e.  $\left(\frac{9}{16}\right)^{\frac{3}{2}}$

f.  $\left(\frac{4}{25}\right)^{-\frac{3}{2}}$