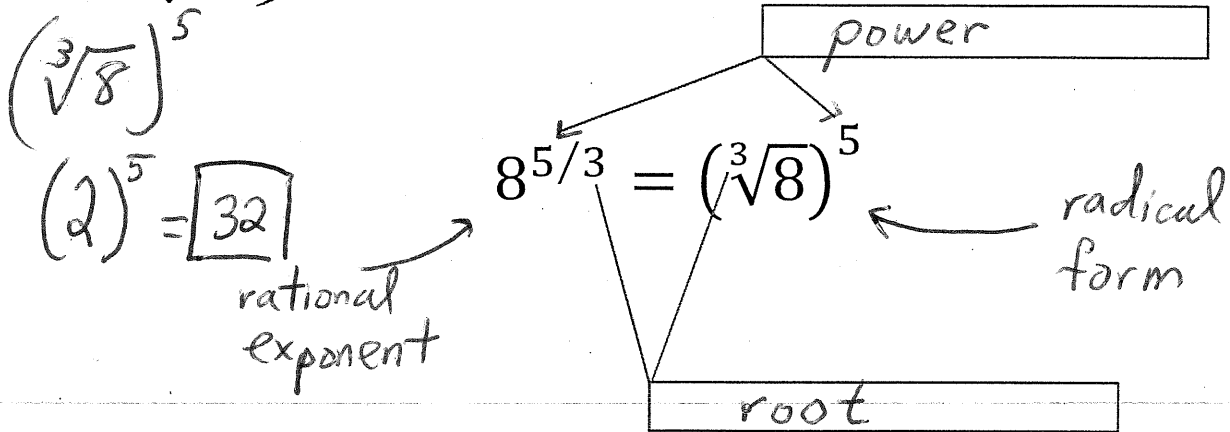


Dec. 2, 2014 (Tues)



Ex 1: Rewrite the expression in radical form.

a.  $5^{2/3} = \sqrt[3]{5^2}$   
 $(\sqrt[3]{5})^2$

b.  $14^{1/2} = \sqrt[2]{14}$   
 $= \sqrt{14}$

c.  $7^{5/4} = \sqrt[4]{7^5}$

Ex 2: Rewrite the expression using a rational exponent.

a.  $(\sqrt[4]{10})^7 = 10^{7/4}$

b.  $(\sqrt[6]{6})^3 = 6^{3/6} = 6^{1/2}$

c.  $(\sqrt[2]{3})^5 = 3^{5/2}$

Ex 3: Evaluate the expression.

a.  $9^{5/2} = (\sqrt{9})^5 = 243$   
 $(\sqrt[2]{9})^5$

b.  $(-343)^{2/3} = 49$

c.  $36^{3/2} = 216$   
 $\sqrt[2]{36}^3 = 216$

Try This:

A. Rewrite in radical form	$24^{1/2}$	$7^{3/4}$	$15^{5/3}$
B. Rewrite using rational exponents	$(\sqrt[3]{12})^2$	$(\sqrt[4]{3})^5$	$(\sqrt{6})^6$
C. Evaluate	$9^{1/2}$	$27^{1/3}$	$81^{3/4}$
	$32^{2/5}$	$8^{4/3}$	$256^{5/4}$