

8, 12, 11, 16, 21

$$8. \left(\frac{4}{81}\right)^{3/2} = \left(\frac{\sqrt{4}}{\sqrt{81}}\right)^3 = \left(\frac{2}{9}\right)^3$$

$$\left(\frac{8}{729}\right)$$

$$11. (-8)^{2/3} = \left(\sqrt[3]{-8}\right)^2 = (-2)^2 = 4$$

$$\sqrt[3]{(-8)^2} = \sqrt[3]{64} = 4$$

$$12. \left(\frac{1}{64}\right)^{-2/3} = \left(\frac{64}{1}\right)^{2/3}$$

$$\left(\sqrt[3]{64}\right)^2 = 4^2 = 16$$

$$14. 16^{-3/4} = \frac{1}{16^{3/4}}$$

$$\left(\frac{1}{\sqrt[4]{16}}\right)^3 = \frac{1}{2^3} = \left(\frac{1}{8}\right)$$

$$21. \left(\frac{8}{27}\right)^{-2/3} = \left(\frac{27}{8}\right)^{2/3}$$

$$\left(\frac{\sqrt[3]{27}}{\sqrt[3]{8}}\right)^2 = \left(\frac{3}{2}\right)^2 = \left(\frac{9}{4}\right)$$

HW ASSESSMENT  
4/2/10

3.  $32^{2/5}$

Express as a radical  
then simplify.