

P. 376

$$x^{\frac{3}{1}} = 64^{\left(\frac{1}{3}\right)}$$

$$x = \sqrt[3]{64}$$

$$x = 4$$

~~$$x^{\frac{2}{3}} = 4^{\frac{1}{2}}$$~~

$$x = \left(\sqrt[3]{4}\right)^3$$

$$x = 4$$

$$x = 8$$

~~$$x^{\frac{1}{2}} = 5^2$$~~

$$x = 25$$

~~$$x^{\frac{4}{1}} = \left(\frac{81}{16}\right)^{\frac{1}{4}}$$~~

$$x = \frac{4\sqrt[4]{81}}{\sqrt[4]{16}} = 2^3$$

P.376

$$6a) \quad 243^{\frac{1}{5}}$$

$$= \sqrt[5]{243}$$

$$= 3$$

$$b) \quad 9^{\frac{2}{3}}$$

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

$$= 3^2$$

$$= 27$$

$$\begin{array}{l}
 c) \quad 8^{\frac{1}{3}} \\
 = \left(\sqrt[3]{8} \right)^{\frac{1}{3}} \\
 = 2^{\frac{1}{3}} \\
 = \sqrt[3]{2}
 \end{array}$$

$$\begin{array}{l}
 d) \quad 81^{\frac{3}{4}} \\
 = \left(\sqrt[4]{81} \right)^3 \\
 = 3^3 \\
 = 27
 \end{array}$$

$$e) (0.0625)^{\frac{1}{4}}$$

$$= \sqrt[4]{0.0625}$$

$$= 0.5$$

$$f) (-32)^{\frac{1}{5}}$$

$$= \left(\sqrt[5]{-32} \right)^3$$

$$= (-2)^3$$

$$= -8$$

$$g_1 \quad 0.01 \quad 2^{1/3}$$

$$= \left(\sqrt[2]{0.01} \right)^3$$

$$= (0.1)^3$$

$$= 0.001$$

$$w_1 \quad (-27)^{4/3}$$

$$= \left(\sqrt[3]{-27} \right)^4$$

$$= (-3)^4$$

$$= 81$$