[12-04-17-T8]

Square roots

■ **Evaluate the following**

[1] Supposing that $\sqrt{31} = 5.5678$ and $\sqrt{3.1} = 1.7606$, find the value of

(a) $\sqrt{3100}$

(b) $\sqrt{310000}$

(c) $\sqrt{.31}$

(d) $\sqrt{.0031}$

(e) $\sqrt{310}$

(f) $\sqrt{31000}$

(g) $\sqrt{.031}$

(h) $\sqrt{.00031}$

[2] Supposing that $\sqrt{2} = 1.4$ and $\sqrt{3} = 1.7$, find the value of

(a) $\sqrt{12}$

(b) $\sqrt{18}$

(c) $\sqrt{6}$

(d) $\sqrt{600}$

Answers

[1] Supposing that $\sqrt{31} = 5.5678$ and $\sqrt{3.1} = 1.7606$, find the value of

(a) $10\sqrt{31} = 55.678$

(b) $100\sqrt{31} = 556.78$

(c) $\frac{1}{100}\sqrt{3.1} = 0.017606$

(d) $\sqrt{.0031} = \frac{1}{100}\sqrt{31} = .055678$

(e) $\sqrt{310} = 10\sqrt{3.1} = 17.606$

(f) $\sqrt{31000} = 100\sqrt{3.1} = 176.06$

(g) $\sqrt{.031} = \frac{1}{10}\sqrt{3.1} = .17606$

(h) $\sqrt{.00031} = \frac{1}{100}\sqrt{3.1} = .017606$

[2] Supposing that $\sqrt{2} = 1.4$ and $\sqrt{3} = 1.7$, find the value of

(a) $\sqrt{12} = 2\sqrt{3} = 3.4$

(b) $\sqrt{18} = 3\sqrt{2} = 4.2$

(d) $\sqrt{6} = \sqrt{2}\sqrt{4} = 1.4 \cdot 1.7 = 2.38$

(e) $\sqrt{600} = 10\sqrt{6} = 23.8$