

p. 723) 21-23, 25, 30-33

$$\textcircled{21} \frac{a\sqrt{a}}{11}$$

$$\textcircled{22} \frac{5}{x}$$

$$\textcircled{23} B$$

$$\textcircled{25} \begin{array}{l} \textcircled{1} \text{ Simplify } \sqrt{45} \text{ first \& then multiply by } \sqrt{5} \\ \textcircled{2} \text{ multiply } \sqrt{45} \text{ by } \sqrt{5} \text{ \& then simplify} \end{array}$$

$$\textcircled{30} \frac{3\sqrt{a}}{a}$$

$$\textcircled{31} \frac{\sqrt{2x}}{2x}$$

$$\textcircled{32} \frac{x\sqrt{10}}{5}$$

$$\textcircled{33} \frac{2\sqrt{6n}}{3n^2}$$

Solutions

$$\textcircled{21} \sqrt{\frac{a^3}{11}} = \frac{\sqrt{a^3}}{\sqrt{11}} = \frac{\sqrt{a^2 \cdot a}}{\sqrt{11}} = \frac{a\sqrt{a}}{11}$$

$$\textcircled{22} \sqrt{\frac{100}{4x^2}} = \frac{\sqrt{100}}{\sqrt{4x^2}} = \frac{10}{2x} = \frac{5}{x}$$

$$\textcircled{23} \sqrt{\frac{9x}{16}} = \frac{\sqrt{9x}}{\sqrt{16}} = \frac{3\sqrt{x}}{4} \quad B$$

$$\textcircled{30} \frac{3}{\sqrt{a}} \cdot \frac{\sqrt{a}}{\sqrt{a}} = \frac{3\sqrt{a}}{a}$$

$$\textcircled{31} \frac{1}{\sqrt{2x}} \cdot \frac{\sqrt{2x}}{\sqrt{2x}} = \frac{\sqrt{2x}}{2x}$$

$$\textcircled{32} \sqrt{\frac{2x^2}{5}} = \frac{\sqrt{2x^2}}{\sqrt{5}} = \frac{x\sqrt{2}}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} = \frac{x\sqrt{10}}{5}$$

$$\textcircled{33} \sqrt{\frac{8}{3n^3}} = \frac{\sqrt{8}}{\sqrt{3n^3}} = \frac{\sqrt{4 \cdot 2}}{\sqrt{3 \cdot n^2 \cdot n}} = \frac{2\sqrt{2}}{n\sqrt{3n}} \cdot \frac{\sqrt{3n}}{\sqrt{3n}} = \frac{2\sqrt{6n}}{n \cdot 3n} = \frac{2\sqrt{6n}}{3n^2}$$