

$$I) \frac{7}{\sqrt{2}} \times \sqrt{2} = \frac{7\sqrt{2}}{\sqrt{4}} = \frac{7\sqrt{2}}{2}$$

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

$$K) \text{Area} = L \times B = 2\sqrt{3} \times \sqrt{6} = 2\sqrt{18} = 2\sqrt{9 \times 2} = 2 \times 3\sqrt{2} = 6\sqrt{2}$$

$$L) m^5 \times m^{-8} = m^{-3} = \frac{1}{m^3}$$

$$M) \frac{m^5}{m^3} = m^2$$

$$N) \begin{aligned} 2\sqrt{5} + \sqrt{20} - \sqrt{45} \\ 2\sqrt{5} + \sqrt{4 \times 5} - \sqrt{9 \times 5} \\ 2\sqrt{5} + 2\sqrt{5} - 3\sqrt{5} \\ = \sqrt{5} \end{aligned}$$

$$A) \begin{aligned} \sqrt{18} - \sqrt{2} + \sqrt{72} \\ \sqrt{9 \times 2} - \sqrt{2} + \sqrt{36 \times 2} \\ 3\sqrt{2} - \sqrt{2} + 6\sqrt{2} \\ = 8\sqrt{2} \end{aligned}$$

$$B) \begin{aligned} \sqrt{45} - 2\sqrt{5} \\ \sqrt{9 \times 5} - 2\sqrt{5} \\ 3\sqrt{5} - 2\sqrt{5} = \sqrt{5} \end{aligned}$$

$$C) 6x^{\frac{3}{2}} \div 2x^{\frac{1}{2}} = 3x^{\frac{3}{2} - \frac{1}{2}} = 3x^1 = 3x$$

$$D) \frac{\sqrt{48}}{\sqrt{2}} = \frac{\sqrt{4 \times 12}}{\sqrt{2}} = \frac{2\sqrt{12}}{\sqrt{2}} = 2\sqrt{6}$$

$$\begin{aligned} E) & a^{\frac{2}{3}} (a^{\frac{2}{3}} - a^{-\frac{2}{3}}) \\ &= a^{\frac{4}{3}} - a^0 \\ &= a^{\frac{4}{3}} - 1 \end{aligned}$$

$$\begin{aligned} F) & \sqrt{12} + 5\sqrt{3} - \sqrt{27} \\ &= \sqrt{4}\sqrt{3} + 5\sqrt{3} - \sqrt{9}\sqrt{3} \\ &= 2\sqrt{3} + 5\sqrt{3} - 3\sqrt{3} \\ &= 4\sqrt{3} \end{aligned}$$

$$G) \frac{3a^5 \times 2a}{a^2} = \frac{6a^6}{a^2} = 6a^4$$

$$H) k^8 \times (k^2)^{-3} = k^8 \times k^{-6} = k^2$$