



*That's
radical
man!*

**Addition and Subtraction of
Radicals**

$$A) 3\sqrt{2} + 7\sqrt{2}$$

Like
Radicals
Ma



$$= 10\sqrt{2}$$

$$B) 5\sqrt{7} - 6\sqrt{7}$$

$$= -1\sqrt{7}$$

or

$$= -\sqrt{7}$$

$$C) 4\sqrt{3} - 2\sqrt{5}$$

Not possible

$$\text{d) } \frac{2\sqrt{7} + 4\sqrt{3}}{-7\sqrt{7}} - \frac{9\sqrt{7} + 5\sqrt{3}}{9\sqrt{3}}$$



$$\begin{aligned} \text{e) } & 6\sqrt{3} + \sqrt{12} \\ & 6\sqrt{3} + \sqrt{4 \times 3} \\ & 6\sqrt{3} + 2\sqrt{3} \\ & = 8\sqrt{3} \end{aligned}$$

$$f) 2\sqrt{50} + \sqrt{18} - 3\sqrt{8} + 7\sqrt{2}$$

$$2\sqrt{25 \times 2} + \sqrt{9 \times 2} - 3\sqrt{4 \times 2} + 7\sqrt{2}$$

$$10\sqrt{2} + 3\sqrt{2} - 6\sqrt{2} + 7\sqrt{2}$$

$$= 14\sqrt{2}$$

😊 g) $\underline{2\sqrt{3}} + 5\sqrt{6} - \underline{7\sqrt{3}}$
 $-5\sqrt{3} + 5\sqrt{6}$

$$\begin{aligned} \text{h)} \quad & \frac{2^{\cancel{2}}\sqrt{7}}{3^{\cancel{2}}\sqrt{7}} + \frac{1^{\cancel{3}}\sqrt{7}}{2^{\cancel{3}}\sqrt{7}} - \frac{5}{6}\sqrt{7} \\ & \frac{4}{6}\sqrt{7} + \frac{3}{6}\sqrt{7} - \frac{5}{6}\sqrt{7} \\ & = \frac{2}{6}\sqrt{7} \\ & = \frac{1}{3}\sqrt{7} \end{aligned}$$

i) $\frac{1}{2}\sqrt{48} + \frac{2}{3}\sqrt{108}$

$\frac{1}{2}\sqrt{16 \times 3} + \frac{2}{3}\sqrt{36 \times 3}$

$\frac{4}{2}\sqrt{3} + \frac{12}{3}\sqrt{3}$

$2\sqrt{3} + 4\sqrt{3}$

$6\sqrt{3}$