

SURDS : 4

Simplify

$$1) \frac{9 + 4\sqrt{2}}{5 + 3\sqrt{2}}$$

$$2) \frac{9}{\sqrt{3}-1} + \frac{7}{\sqrt{3}+1}$$

$$3) (\sqrt{8} \times \sqrt{10}) + \frac{\sqrt{90}}{\sqrt{2}} - \frac{30}{\sqrt{5}}$$

$$4) \frac{10}{7 + 2\sqrt{11}}$$

$$5) (4\sqrt{3})^2 - (\sqrt{8} \times \sqrt{50}) - \frac{5\sqrt{63}}{\sqrt{7}}$$

$$6) \frac{6\sqrt{7} - 11\sqrt{2}}{\sqrt{7} - \sqrt{2}}$$

$$7) \frac{3}{2\sqrt{6}} + \left(\frac{\sqrt{6}}{2}\right)^3$$

$$8) \frac{4}{\sqrt{5}+1} + \frac{1}{\sqrt{5}-1}$$

$$9) \frac{2\sqrt{3} - 6}{2\sqrt{3} + 3}$$

$$10) \frac{2\sqrt{5} - \sqrt{2}}{\sqrt{5} + \sqrt{2}}$$