

Surds

(1) $\sqrt{50}$

(2) $\sqrt{18}$

(3) $\sqrt{12}$

(4) $\sqrt{72}$

(5) $\sqrt{45}$

(6) $\sqrt{8} + \sqrt{18}$

(7) $\sqrt{12} + \sqrt{27}$

(8) $\sqrt{125} - \sqrt{45}$

(9) $\sqrt{28} + \sqrt{63}$

(10) $\sqrt{12} + \sqrt{18}$

(11) $\sqrt{8} \times \sqrt{2}$

(12) $\sqrt{12} \times \sqrt{75}$

(13) $\sqrt{45} \times \sqrt{20}$

(14) $\sqrt{27} \times \sqrt{12}$

(15) $\sqrt{18} \div \sqrt{8}$

$$(16) \quad \frac{1}{\sqrt{2}}$$

$$(17) \quad \frac{1}{\sqrt{5}}$$

$$(18) \quad \frac{3}{\sqrt{7}}$$

$$(19) \quad \frac{1}{\sqrt{8}}$$

$$(20) \quad \frac{6}{\sqrt{12}}$$

$$(21) \quad (1 + \sqrt{3})(2 - \sqrt{3})$$

$$(22) \quad (5 + \sqrt{2})(3 - \sqrt{2})$$

$$(23) \quad (6 - \sqrt{3})(2 - \sqrt{3})$$

$$(24) \quad (4 + \sqrt{3})(4 - \sqrt{3})$$

$$(25) \quad (2 + 5\sqrt{3})(3 - 4\sqrt{3})$$

Find x and y if:

$$(26) \quad (5 + \sqrt{x})^2 = 32 + 10\sqrt{x}$$

$$(27) \quad (3 - \sqrt{x})^2 = y - 6\sqrt{5}$$

$$(28) \quad (4 + \sqrt{x})(1 - \sqrt{x}) = y - 3\sqrt{5}$$

$$(29) \quad (5 + \sqrt{x})^2 = y + 20\sqrt{2}$$

$$(30) \quad (7 + 2\sqrt{x})(2 - 3\sqrt{x}) = y - 17\sqrt{5}$$