

$$10) 2 - \sqrt{5} \quad \text{irrational}$$

$$\begin{aligned} 11) (3 + \sqrt{23}) - \sqrt{23} \\ = 3 + \cancel{\sqrt{23}} - \cancel{\sqrt{23}} \\ = 3 \quad \text{rational} \end{aligned}$$

$$\begin{aligned} 12) \frac{2\sqrt{7}}{7\sqrt{7}} \\ = \frac{2}{7} \quad \text{rational.} \end{aligned}$$

$$13) \frac{1}{\sqrt{2}} \quad \text{irrational}$$

$$14) 2\pi \quad \text{irrational}$$

$$\begin{aligned} 21) (3 + \sqrt{3})(2 + \sqrt{2}) \\ = 6 + 3\sqrt{2} + 2\sqrt{3} + \sqrt{6} \end{aligned}$$

$$\begin{aligned} 22) (3 + \sqrt{3})(3 - \sqrt{3}) \\ = 3^2 - (\sqrt{3})^2 \\ = 9 - 3 \\ = 6 \end{aligned}$$

$$\begin{aligned} 23) (\sqrt{5} + \sqrt{2})^2 \\ = (\sqrt{5})^2 + 2 \times \sqrt{5} \times \sqrt{2} + (\sqrt{2})^2 \\ = 5 + 2\sqrt{10} + 2 \\ = 7 + 2\sqrt{10} \end{aligned}$$

$$\begin{aligned} 24) (\sqrt{5} - \sqrt{2})(\sqrt{5} + \sqrt{2}) \\ = (\sqrt{5})^2 - (\sqrt{2})^2 \\ = 5 - 2 \\ = 3 \end{aligned}$$

$$25) \text{ visit}$$

www.en.wikipedia.org/wiki/pi