

$\bar{x} \sqrt{y}$

$$(3 - \sqrt{3})(\sqrt{3}) = 3\sqrt{3} - \sqrt{3}\sqrt{3} = 3\sqrt{3} - 3$$

**rationalising the denominator**

$$(a - b\sqrt{c})(a + b\sqrt{c}) = a^2 - b^2c$$

$$\frac{4 - \sqrt{3}}{\sqrt{3}} = \frac{4 - \sqrt{3}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{(4 - \sqrt{3})\sqrt{3}}{3} = \frac{4\sqrt{3} - 3}{3}$$

$$\frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{3}{3} = 1$$

**Y** always

$$\frac{\sqrt{3}}{\sqrt{3}} = 1$$

3

$$\sqrt{3} \times \sqrt{3} = 3$$

**no useful simplification**

## EXERCISES

