

**Rational and Irrational numbers Part 2****Solution**

4. (a)  $\sqrt{36 \times 14} = 6\sqrt{14}$

(b)  $\sqrt{16 \times 54} = 4\sqrt{54} = 4\sqrt{9 \times 6} = 12\sqrt{6}$

5.  $\sqrt{3 \times 2 \times 16} - \sqrt{2 \times 3 \times 25} = 4\sqrt{3}\sqrt{2} - 5\sqrt{3}\sqrt{2}$   
 $= 4ab - 5ab = -ab$

6. (a)  $\sqrt{16 \times 3} + \sqrt{9 \times 3 \times 4} = 4\sqrt{3} + 6\sqrt{3} = 10\sqrt{3}$

(b)  $\frac{9\sqrt{3}}{5} - 2\sqrt{3} = \frac{9\sqrt{3} - 10\sqrt{3}}{5} = -\frac{\sqrt{3}}{5}$

7. (a)  $\frac{4}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} = \frac{4\sqrt{5}}{5}$

(b)  $\frac{4\sqrt{5}}{5} - \frac{3\sqrt{5}}{5} = \frac{\sqrt{5}}{5}$