



Exercise - 2B

Q1

Answer :

- (i) $57.36 = 5.736 \times 10$
- (ii) $3500000 = 3.5 \times 10^6$
- (iii) $273000 = 2.73 \times 10^5$
- (iv) $168000000 = 1.68 \times 10^8$
- (v) $4630000000000 = 4.63 \times 10^{12}$
- (vi) $345 \times 10^5 = 3.45 \times 10^7$

Q2

Answer :

- (i) $3.74 \times 10^5 = \frac{374}{100} \times 10^5 = \frac{374 \times 10^5}{10^2} = 374 \times 10^{(5-2)} = 374 \times 10^3 = 374000$
- (ii) $6.912 \times 10^8 = \frac{6912}{1000} \times 10^8 = \frac{6912 \times 10^8}{10^3} = 6912 \times 10^{(8-3)} = 6912 \times 10^5 = 691200000$
- (iii) $4.1253 \times 10^7 = \frac{41253}{10000} \times 10^7 = \frac{41253 \times 10^7}{10^4} = 41253 \times 10^{(7-4)} = 41253 \times 10^3 = 41253000$
- (iv) $2.5 \times 10^4 = \frac{25}{10} \times 10^4 = \frac{25 \times 10^4}{10} = 25 \times 10^{(4-1)} = 25 \times 10^3 = 25000$
- (v) $5.17 \times 10^6 = \frac{517}{100} \times 10^6 = \frac{517 \times 10^6}{10^2} = 517 \times 10^{(6-2)} = 517 \times 10^4 = 5170000$
- (vi) $1.679 \times 10^9 = \frac{1679}{1000} \times 10^9 = \frac{1679 \times 10^9}{10^3} = 1679 \times 10^{(9-3)} = 1679 \times 10^6 = 1679000000$

Q3

Answer :

- (i) The height of the Mount Everest is 8848 m.

In standard form, we have:

$$8848 = 8.848 \times 1000 \text{ m} = 8.848 \times 10^3 \text{ m}$$

- (ii) The speed of light is 300000000 m/s.

In standard form, we have:

$$300000000 = 3 \times 100000000 \text{ m/s} = 3 \times 10^8 \text{ m/s}$$

- (iii) The Sun—Earth distance is 149600000000 m.

In standard form, we have:

$$149600000000 = 1496 \times 100000000 = 1.496 \times 1000 \times 100000000 = 1.496 \times 10^3 \times 10^8 = 1.496 \times 10^{11} \text{ m}$$

***** END *****