Mathematics

Exercise 2.5

Question 1:

Which is greater:

(i)	0.5 or 0.05	(ii)	0.7 or 0.5	(iii)	7 or 0.7
(iv)	1.37 or 1.49	(v)	2.03 or 2.30	(vi)	0.8 or 0.88

Answer 1:

(i)	0.5 > 0.05	(ii)	0.7 > 0.5	(iii) 7 > 0.7
(iv)	1.37 < 1.49	(v)	2.03 < 2.30	(vi) 0.8 < 0.88

Question 2:

Express as rupees using decimals:

(i)	7 paise	(ii)	7 rupees 7 paise
(iii)	77 rupees 77 paise	(iv)	50 paise
(v)	235 paise		

Answer 2:

∵   100 paise = ₹1

∴   1 paisa = ₹ $\dfrac{1}{100}$

(i)   7 paise = ₹ $\dfrac{7}{100}$ = ₹ 0.07

(ii)   7 rupees 7 paise = ₹ 7 + ₹ $\dfrac{7}{100}$ = ₹ 7 + ₹ 0.07 = ₹ 7.07

(iii)   77 rupees 77 paise = ₹ 77 + ₹ $\dfrac{77}{100}$ = ₹ 77 + ₹ 0.77 = ₹ 77.77

(iv)   50 paise = ₹ $\dfrac{50}{100}$ = ₹ 0.50

(v)   235 paise = ₹ $\dfrac{235}{100}$ = ₹ 2.35

Question 3:

(i)   Express 5 cm in metre and kilometer.

(ii)   Express 35 mm in cm, m and km.

Answer 3:

(i)   Express 5 cm in meter and kilometer.

∵   100 cm = 1 meter

∴   1 cm = $\dfrac{1}{100}$ meter

⇒   5 cm = $\dfrac{5}{100}$ = 0.05 meter.

Now,

∵   1000 meters = 1 kilometers

∴   1 meter = $\dfrac{1}{1000}$ kilometer

⇒   0.05 meter = $\dfrac{0.05}{1000}$ = 0.00005 kilometer

(ii)   Express 35 mm in cm, m and km.

$\because$ 10 mm = 1 cm

$\therefore$ 1 mm = $\dfrac{1}{10}$ cm

$\Rightarrow$ 35 mm = $\dfrac{35}{10}$ = 3.5 cm

Now, $\because$ 100 cm = 1 meter

$\therefore$ 1 cm = $\dfrac{1}{100}$ meter

$\Rightarrow$ 3.5 cm = $\dfrac{3.5}{100}$ = 0.035 meter

Again,

$\because$ 1000 meters = 1 kilometers

$\therefore$ 1 meter = $\dfrac{1}{1000}$ kilometer

$\Rightarrow$ 0.035 meter = $\dfrac{0.035}{1000}$ = 0.000035 kilometer

Question 4:
Express in kg.:

(i)   200 g   (ii)   3470 g   (iii)   4 kg 8 g

Answer 4:
Let us consider,

1000 g = 1 kg

$\Rightarrow$ 1 g = $\dfrac{1}{1000}$ kg

(i)   200 g = $\left(200 \times \dfrac{1}{1000} \right)$ kg = 0.2 kg

(ii)   3470 g = $\left(3470 \times \dfrac{1}{1000} \right)$ kg = 3.470 kg

(iii)   4 kg 8 g = 4 kg + $\left(8 \times \dfrac{1}{1000} \right)$ kg = 4 kg + 0.008 kg = 4.008 kg

Question 5:
Write the following decimal numbers in the expanded form:

(i)   20.03   (ii)   2.03   (iii)   200.03   (iv)   2.034

Answer 5:

(i)   20.03 = $2 \times 10 + 0 \times 1 + 0 \times \dfrac{1}{10} + 3 \times \dfrac{1}{100}$

(ii)   2.03 = $2 \times 1 + 0 \times \dfrac{1}{10} + 3 \times \dfrac{1}{100}$

(iii)   200.03 = $2 \times 100 + 0 \times 10 + 0 \times 1 + 0 \times \dfrac{1}{10} + 3 \times \dfrac{1}{100}$

(iv)   2.034 = $2 \times 1 + 0 \times \dfrac{1}{10} + 3 \times \dfrac{1}{100} + 4 \times \dfrac{1}{1000}$

Question 6:
Write the place value of 2 in the following decimal numbers:
  (i)   2.56   (ii)   21.37   (iii)   10.25
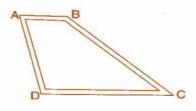 (iv)   9.42   (v)   63.352

Answer 6:
  (i)   Place value of 2 in 2.56 = 2 x 1 = 2 ones
  (ii)   Place value of 2 in 21.37 = 2 x 10 = 2 tens
  (iii) Place value of 2 in 10.25 = $2 \times \dfrac{1}{10}$ = 2 tenths
  (iv)   Place value of 2 in 9.42 = $2 \times \dfrac{1}{100}$ = 2 hundredth
  (v)   Place value of 2 in 63.352 = $2 \times \dfrac{1}{1000}$ = 2 thousandth

Question 7:
Dinesh went from place A to place B and from there to place C. A is 7.5 km from B and B is 12.7 km from C. Ayub went from place A to place D and from there to place C. D is 9.3 km from A and C is 11.8 km from D. Who travelled more and by how much?

Answer 7:
Distance travelled by Dinesh when he went from place A to place B = 7.5 km and from place B to C = 12.7 km.

  Total distance covered by Dinesh = AB + BC
                                  = 7.5 + 12.7 = 20.2 km
  Total distance covered by Ayub = AD + DC
                                  = 9.3 + 11.8 = 21.1 km
  On comparing the total distance of Ayub and Dinesh,
            21.1 km > 20.2 km

Therefore, Ayub covered more distance by 21.1 – 20.2 = 0.9 km = 900 m

Question 8:
Shyam bought 5 kg 300 g apples and 3 kg 250 g mangoes. Sarala bought 4 kg 800 g oranges and 4 kg 150 g bananas. Who bought more fruits?

Answer 8:
  Total weight of fruits bought by Shyam = 5 kg 300 g + 3 kg 250 g = 8 kg 550 g
  Total weight of fruits bought by Sarala = 4 kg 800 g + 4 kg 150 g = 8 kg 950 g

  On comparing the quantity of fruits, 8 kg 550 g < 8 kg 950 g
  Therefore, Sarala bought more fruits.

Question 9:
How much less is 28 km than 42.6 km?

Answer 9:
  We have to find the difference of 42.6 km and 28 km.
  Difference = 42.6 – 28.0 = 14.6 km
  Therefore 14.6 km less is 28 km than 42.6 km.