

CBSE Class –VII Mathematics NCERT
Solutions
Chapter 2 Fractions and Decimals (Ex. 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: (i) $0.50 > 0.05$

(ii) $0.7 > 0.5$

(iii) $7.0 > 0.7$

(iv) $1.37 < 1.49$

(v) $2.03 < 2.30$

(vi) $0.80 < 0.88$

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: \because 100 paise = Re. 1

$$\therefore 1 \text{ paise} = \text{Re. } \frac{1}{100}$$

$$7 \text{ paise} = \text{Re. } \frac{7}{100} = \text{Re. } 0.07$$

$$7 \text{ rupees } 7 \text{ paise} = \text{Rs. } 7 + \text{Re. } \frac{7}{100} = \text{Rs. } 7 + \text{Re. } 0.07 = \text{Rs. } 7.07$$

$$77 \text{ rupees } 77 \text{ paise} = \text{Rs. } 77 + \text{Re. } \frac{77}{100} = \text{Rs. } 77 + \text{Re. } 0.77 = \text{Rs. } 77.77$$

$$50 \text{ paise} = \text{Re. } \frac{50}{100} = \text{Re. } 0.50$$

$$235 \text{ paise} = \text{Re. } \frac{235}{100} = \text{Rs. } 2.35$$

Question 3. (i) Express 5 cm in metre and kilometer.

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

Answer: (i) Express 5 cm in meter and kilometer.

$$\because 100 \text{ cm} = 1 \text{ meter}$$

$$\therefore 1 \text{ cm} = \frac{1}{100} \text{ meter} \Rightarrow 5 \text{ cm} = \frac{5}{100} = 0.05 \text{ meter.}$$

Now, \because 1000 meters = 1 kilometers

$$\therefore 1 \text{ meter} = \frac{1}{1000} \text{ kilometer}$$

$$\Rightarrow 0.05 \text{ meter} = \frac{0.05}{1000} = 0.00005 \text{ kilometer}$$

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

$$\because 10 \text{ mm} = 1 \text{ cm}$$

$$\therefore 1 \text{ mm} = \frac{1}{10} \text{ cm} \Rightarrow 35 \text{ mm} = \frac{35}{10} = 3.5 \text{ cm}$$

Now, \because 100 cm = 1 meter

$$\therefore 1 \text{ cm} = \frac{1}{100} \text{ meter} \Rightarrow 3.5 \text{ cm} = \frac{3.5}{100} = 0.035 \text{ meter}$$

Again, \therefore 1000 meters = 1 kilometers

$$\therefore 1 \text{ meter} = \frac{1}{1000} \text{ kilometer}$$

$$\Rightarrow 0.035 \text{ meter} = \frac{0.035}{1000} = 0.000035 \text{ kilometer}$$

Question 4. Express in kg.:

(i) 200 g

(ii) 3470 g

(iii) 4 kg 8 g

Answer: $1000 \text{ g} = 1 \text{ kg} \Rightarrow 1 \text{ g} = \frac{1}{1000} \text{ kg}$

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

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

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

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

(i) 20.03

(ii) 2.03

(iii) 200.03

(iv) 2.034

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

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

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

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

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: (i) Place value of 2 in 2.56 = $2 \times 1 = 2$ ones

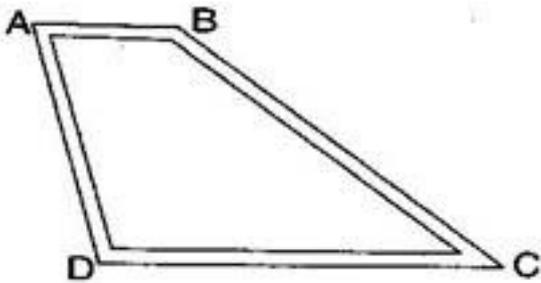
(ii) Place value of 2 in 21.37 = $2 \times 10 = 2$ tens

(iii) Place value of 2 in 10.25 = $2 \times \frac{1}{10} = 2$ tenths

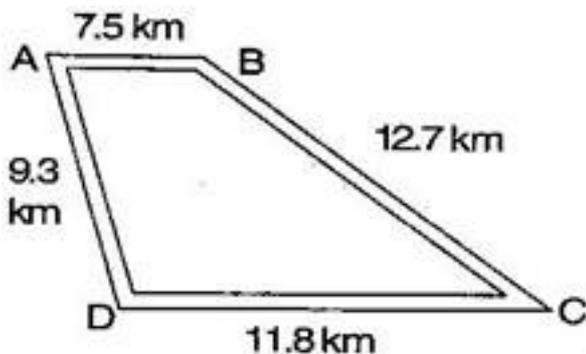
(iv) Place value of 2 in 9.42 = $2 \times \frac{1}{100} = 2$ hundredth

(v) Place value of 2 in 63.352 = $2 \times \frac{1}{1000} = 2$ 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: 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

$$= 7.5 + 12.7 = 20.2 \text{ km}$$

Total distance covered by Ayub = AD + DC

$$= 9.3 + 11.8 = 21.1 \text{ km}$$

On comparing the total distance of Ayub and Dinesh,

$$21.1 \text{ km} > 20.2 \text{ km}$$

Therefore, Ayub covered more distance by $21.1 - 20.2 = 0.9 \text{ km} = 900 \text{ m}$

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: 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,

$$8 \text{ kg } 550 \text{ g} < 8 \text{ kg } 950 \text{ g}$$

Therefore, Sarala bought more fruits.

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

Answer: We have to find the difference of 42.6 km and 28 km.

$$42.6 - 28.0 = 14.6 \text{ km}$$

Therefore 14.6 km less is 28 km than 42.6 km.