



learnkwniy

CLASS 6th

MATHS

CHAPTER- 8th

Decimals

EXERCISE- 8.1

NCERT SOLUTION

1. Which is greater?

(a) 0.3 or 0.4

Ans.

$$0.3 = \frac{3}{10} \text{ and } 0.4 = \frac{4}{10}$$

$$\text{Here, } \frac{3}{10} < \frac{4}{10}$$

(b) 0.07 or 0.02

Ans.

$$0.07 = \frac{7}{100} \text{ and } 0.02 = \frac{2}{100}$$

$$\text{Here, } \frac{7}{100} > \frac{2}{100}$$

(c) 3 or 0.8

Ans.

$$3 \text{ and } 0.8 = \frac{8}{10}$$

$$\text{Here, } 3 > \frac{8}{10}$$

(d) 0.5 or 0.05

Ans.

$$0.5 = 0.50 = \frac{50}{100} \text{ and } 0.05 = \frac{5}{100}$$

$$\text{Here, } \frac{50}{100} > \frac{5}{100}$$

(e) 1.23 or 1.2

Ans.

$$1.23 = \frac{123}{100} \text{ and } 1.2 = 1.20 = \frac{120}{100}$$

$$\text{Here, } \frac{123}{100} > \frac{120}{100}$$

(f) 0.099 or 0.19

Ans.

$$0.099 = \frac{99}{1000} \text{ and } 0.19 = 0.190 = \frac{190}{1000}$$

$$\text{Here, } \frac{99}{1000} < \frac{190}{1000}$$

(g) 1.5 or 1.50

Ans.

$$1.5 = 1.50 = \frac{150}{100} \text{ and } 1.50 = \frac{150}{100}$$

$$\text{Here, } \frac{150}{100} = \frac{150}{100}$$

(h) 1.431 or 1.490

Ans.

$$1.431 < 1.490$$

(i) 3.3 or 3.300

Ans.

$$3.3 = 3.300 \text{ and } 3.300$$

$$3.3 = 3.300$$

(j) 5.64 or 5.603

Ans.

$$5.56 > 5.603$$

EXERCISE- 8.2

NCERT SOLUTION

1. Express as rupees using decimals.

(a) 5 paise

Ans.

$$1 \text{ paise} = ₹ \frac{1}{100}$$

$$\therefore 5 \text{ paise} = \frac{1}{100} \times 5 = ₹ 0.05$$

(b) 75 paise

Ans.

$$1 \text{ paise} = ₹ \frac{1}{100}$$

$$\therefore 75 \text{ paise} = \frac{1}{100} \times 75 = ₹ 0.75$$

(c) 20 paise

Ans.

$$1 \text{ paise} = ₹ \frac{1}{100}$$

$$\therefore 20 \text{ paise} = \frac{1}{100} \times 20 = ₹ 0.20$$

(d) 50 rupees 90 paise

Ans.

$$1 \text{ paise} = ₹ \frac{1}{100}$$

$$\therefore ₹ 50 + 90 \text{ paise} = 50 + \frac{1}{100} \times 90 = 50 + 0.90 = ₹ 50.90$$

(e) 725 paise

Ans.

$$1 \text{ paise} = ₹ \frac{1}{100}$$

$$\therefore 725 \text{ paise} = \frac{1}{100} \times 725 = \frac{725}{100} = ₹ 7.25$$

2. Express as metres using decimals.

(a) 15 cm

Ans.

$$1 \text{ cm} = \frac{1}{100} \text{ m}$$

$$\therefore 15 \text{ cm} = \frac{1}{100} \times 15 = 0.15 \text{ m}$$

(b) 6 cm

Ans.

$$1 \text{ cm} = \frac{1}{100} \text{ m}$$

$$\therefore 6 \text{ cm} = \frac{1}{100} \times 6 = 0.06 \text{ m}$$

(c) 2m 45 cm

Ans.

$$1 \text{ cm} = \frac{1}{100} \text{ m}$$

$$\therefore 2 \text{ m} + 45 \text{ cm} = 2 + \frac{1}{100} \times 45 = 2.45 \text{ m}$$

(d) 9 m 7 cm

Ans.

$$1 \text{ cm} = \frac{1}{100} \text{ m}$$

$$\therefore 9 \text{ m} + 7 \text{ cm} = 9 + \frac{1}{100} \times 7 = 9 + 0.07 = 9.07 \text{ m}$$

(e) 419 cm

Ans.

$$1 \text{ cm} = \frac{1}{100} \text{ m}$$

$$\therefore 419 \text{ cm} = \frac{1}{100} \times 419 = 4.19 \text{ m}$$

3. Express as cm using decimals.

(a) 5 mm

Ans.

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

$$\therefore 5 \text{ mm} = \frac{1}{10} \times 5 = 0.5 \text{ cm}$$

(b) 60 mm

Ans.

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

$$\therefore 60 \text{ mm} = \frac{1}{10} \times 60 = 6 \text{ cm}$$

(c) 164 mm

Ans.

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

$$\therefore 164 \text{ mm} = \frac{1}{10} \times 164 = 16.4 \text{ cm}$$

(d) 9 cm 8 mm

Ans.

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

$$\therefore 9 \text{ cm } 8 \text{ mm} = 9 \text{ cm} + \frac{1}{10} \times 8 = 9 + 0.8 = 9.8 \text{ cm}$$

(e) 93 mm

Ans.

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

$$\therefore 93 \text{ mm} = \frac{1}{10} \times 93 = 9.3 \text{ cm}$$

4. Express as km using decimals.

(a) 8 m

Ans.

$$1 \text{ m} = \frac{1}{1000} \text{ km}$$

$$\therefore 8 \text{ m} = \frac{1}{1000} \times 8 = 0.008 \text{ km}$$

(b) 88 m

Ans.

$$1 \text{ m} = \frac{1}{1000} \text{ km}$$

$$\therefore 88 \text{ m} = \frac{1}{1000} \times 88 = 0.088 \text{ km}$$

(c) 888 m

Ans.

$$1 \text{ m} = \frac{1}{1000} \text{ km}$$

$$\therefore 888 \text{ m} = \frac{1}{1000} \times 888 = 0.888 \text{ km}$$

(d) 70 km 5 m

Ans.

$$1 \text{ m} = \frac{1}{1000} \text{ km}$$

$$\therefore 70 \text{ km } 5 \text{ m} = 70 + \frac{1}{1000} \times 5 = 70 + 0.005 = 70.005 \text{ km}$$

5. Express as kg using decimals.

(a) 2 g

Ans.

$$1 \text{ g} = \frac{1}{1000} \text{ kg}$$

$$\therefore 2 \text{ g} = \frac{1}{1000} \times 2 = 0.002 \text{ kg}$$

(b) 100 g

Ans.

$$1 \text{ g} = \frac{1}{1000} \text{ kg}$$

$$\therefore 100 \text{ g} = \frac{1}{1000} \times 100 = 0.1 \text{ kg}$$

(c) 3750 kg

Ans.

$$1 \text{ g} = \frac{1}{1000} \text{ kg}$$

$$\therefore 3750 \text{ g} = \frac{1}{1000} \times 3750 = 3.750 \text{ kg}$$

(d) 5 kg 8 g

Ans.

$$1 \text{ g} = \frac{1}{1000} \text{ kg}$$

$$\therefore 5 \text{ kg } 8 \text{ g} = 5 \text{ kg} + \frac{1}{1000} \times 8 = 5 + 0.008 = 5.008 \text{ kg}$$

(e) 26 kg 50 g

Ans.

$$1 \text{ g} = \frac{1}{1000} \text{ kg}$$

$$\therefore 26 \text{ kg } 50 \text{ g} = 26 \text{ kg} + \frac{1}{1000} \times 50 = 26 + 0.050 = 26.050 \text{ kg}$$

EXERCISE- 8.3

NCERT SOLUTION

1. Find the sum in each of the following:

(a) $0.007 + 8.5 + 30.08$

Ans.

$$\begin{array}{r} 0.007 \\ 8.500 \\ + 30.080 \\ \hline 38.587 \end{array}$$

(b) $15 + 0.632 + 13.8$

Ans.

$$\begin{array}{r}
 15.000 \\
 0.632 \\
 +13.800 \\
 \hline
 29.432
 \end{array}$$

(c) $27.076 + 0.55 + 0.004$

Ans.

$$\begin{array}{r}
 27.076 \\
 0.550 \\
 + 0.004 \\
 \hline
 27.630
 \end{array}$$

(d) $25.65 + 9.005 + 3.7$

Ans.

$$\begin{array}{r}
 25.650 \\
 9.005 \\
 + 3.700 \\
 \hline
 38.355
 \end{array}$$

(e) $0.75 + 10.425 + 2$

Ans.

$$\begin{array}{r}
 0.750 \\
 10.425 \\
 + 2.000 \\
 \hline
 13.175
 \end{array}$$

(f) $280.69 + 25.2 + 38$

Ans.

$$\begin{array}{r}
 280.69 \\
 25.20 \\
 + 38.00 \\
 \hline
 343.89
 \end{array}$$

2. Rashid spent ₹ 35.75 for Maths book and ₹ 32.60 for Science book. Find the total amount spent by Rashid.

Ans.

Amount spend for Maths book = ₹ 35.75

Amount spend for Science book = ₹ 32.60

Total amount spent by Rashid = ₹ 35.75 + ₹ 32.60 = ₹ 68.35

$$\begin{array}{r} 35.75 \\ + 32.60 \\ \hline 68.35 \end{array}$$

3. Radhika's mother gave her ₹ 10.50 and her father gave her ₹ 15.80. Find the total amount given to Radhika by the parents.

Ans.

Money given by Mother = ₹ 10.50

Money given by Father = ₹ 15.80

Total money received by Radhika = ₹ 10.50 + ₹ 15.80 = ₹ 26.30

$$\begin{array}{r} 10.50 \\ + 15.80 \\ \hline 26.30 \end{array}$$

4. Nasreen bought 3 m 20 cm cloth for her shirt and 2 m 5 cm cloth for her trouser. Find the total length of cloth bought by her.

Ans.

Cloth bought for shirt = 3m 20cm = 3.20 m

Cloth bought for trouser = 2m 5cm = 2.05 m

Total length of cloth bought by Nasreen = 3.20 + 2.05 = 5.25 m

$$\begin{array}{r} 3.20 \\ + 2.05 \\ \hline 5.25 \end{array}$$

5. Naresh walked 2 km 35 m in the morning and 1 km 7 m in the evening. How much distance did he walk in all?

Ans.

Distance travelled in the morning = 2km 35m = 2.035 km

Distance travelled in the evening = 1km 7m = 1.007 km

Total distance travelled = $2.035 + 1.007 = 3.042$ km

$$\begin{array}{r} 2.035 \\ +1.007 \\ \hline 3.042 \end{array}$$

6. Sunita travelled 15 km 268 m by bus, 7 km 7 m by car and 500 m on foot in order to reach her school. How far is her school from her residence?

Ans.

Distance travelled by bus = 15 km 268 m = 15.268 km

Distance travelled by car = 7 km 7 m = 7.007 km

Distance travelled by foot = 500 m = 0.500 km

Total distance travelled = $15.268 + 7.007 + 0.500 = 22.775$ km

$$\begin{array}{r} 15.268 \\ 7.007 \\ + 0.500 \\ \hline 22.775 \end{array}$$

7. Ravi purchased 5 kg 400 g rice, 2 kg 20 g sugar and 10 kg 850 g flour. Find the total weight of his purchases.

Ans.

Weight of Rice = 5 kg 400 g = 5.400 kg

Weight of Sugar = 2 kg 20 g = 2.020 kg

Weight of Flour = 10 kg 850 g = 10.850 kg

Total weight of purchases = $5.400 \text{ kg} + 2.020 \text{ kg} + 10.850 \text{ kg} = 18.270 \text{ kg}$

$$\begin{array}{r} 5.400 \\ 2.020 \\ +10.850 \\ \hline 18.270 \end{array}$$

EXERCISE- 8.4

NCERT SOLUTION

1. Subtract:

(a) ₹18.25 from ₹ 20.75

Ans.

$$\begin{array}{r} 20.75 \\ - 18.25 \\ \hline 02.50 \\ = ₹ 2.50 \end{array}$$

(b) 202.54 m from 250 m

Ans.

$$\begin{array}{r} 250.00 \\ - 220.54 \\ \hline 47.46 \\ = 47.46 \text{ m} \end{array}$$

(c) ₹ 5.36 from ₹8.40

Ans.

$$\begin{array}{r} 8.40 \\ - 5.36 \\ \hline 3.04 \\ = ₹ 3.04 \end{array}$$

(d) 2.051 km from 5.206 km

Ans.

$$\begin{array}{r} 5.206 \\ - 2.051 \\ \hline 3.155 \\ = 3.155 \text{ km} \end{array}$$

(e) 0.314 kg from 2.107 kg

Ans.

$$\begin{array}{r} 2.107 \\ - 0.314 \\ \hline 1.793 \\ = 1.793 \text{ kg} \end{array}$$

2. Find the value of:

(a) 9.756 – 6.28

Ans.

$$\begin{array}{r} 9.756 \\ - 6.280 \\ \hline 3.476 \end{array}$$

(b) 21.05 – 15.27

Ans.

$$\begin{array}{r} 21.05 \\ - 15.27 \\ \hline 05.78 \end{array}$$

(c) 18.5 – 6.79

Ans.

$$\begin{array}{r} 18.50 \\ - 06.79 \\ \hline 11.71 \end{array}$$

(d) 11.6 – 9.847

Ans.

$$\begin{array}{r} 11.600 \\ - 09.847 \\ \hline 1.753 \end{array}$$

3. Raju bought a book for ₹ 35.65. He gave ₹ 50 to the shopkeeper. How much money did he get back from the shopkeeper?

Ans.

Total amount given to the shopkeeper = ₹ 50

Cost of Book = ₹ 35.65

Money get back from the shopkeeper = ₹ 50 - ₹ 35.65 = ₹ 14.35

$$\begin{array}{r} 50.00 \\ - 35.65 \\ \hline 14.35 \end{array}$$

4. Rani had ₹ 18.50. She bought one ice-cream for ₹ 11.75. How much money does she have now?

Ans.

Total money = ₹ 18.50

Cost of Ice-cream = ₹ 11.75

Amount left = ₹ 18.50 - ₹ 11.75 = ₹ 6.75

$$\begin{array}{r} 18.50 \\ - 11.75 \\ \hline 6.75 \end{array}$$

5. Tina had 20 m 5 cm long cloth. She cuts 4 m 50 cm length of cloth from this for making a curtain. How much cloth is left with her?

Ans.

Length of Cloth = 20 m 5 cm = 20.05 m

Length of cloth used for curtain = 4 m 50 cm = 4.50 m

Remaining cloth = 20.05 m - 4.50 m = 15.55 m

$$\begin{array}{r} 20.05 \\ - 04.50 \\ \hline 15.55 \end{array}$$

6. Namita travels 20 km 50 m every day. Out of this she travels 10 km 200 m by bus and the rest by auto. How much distance does she travel by auto?

Ans.

Total distance travel = 20 km 50m = 20.050 km

Distance travelled by bus = 10 km 200 m = 10.200 km

Distance travelled by auto = 20.050 – 10.200 = 9.850 km

$$\begin{array}{r} 20.050 \\ - 10.050 \\ \hline 9.850 \end{array}$$

7. Aakash bought vegetables weighing 10 kg. Out of this, 3 kg 500 g is onions, 2 kg 75 g is tomatoes and the rest is potatoes. What is the weight of the potatoes?

Ans.

Weight of Onion = 3 kg 500 g = 3.500 kg

Weight of tomatoes = 2 kg 75 g = 2.075 kg

Weight of Onion and Tomatoes = 3.500 + 2.075 = 5.575 kg

$$\begin{array}{r} 3.500 \\ + 2.075 \\ \hline 5.575 \end{array}$$

∴ Weight of Potatoes = 10.000 – 5.575 = 4.425 kg

$$\begin{array}{r} 10.000 \\ - 05.575 \\ \hline 4.425 \end{array}$$