Access answers to Maths NCERT Solutions for Class 7 Chapter 8 – Comparing Quantities Exercise 8.2

1. Convert the given fractional numbers to percent.

(a) 1/8

Solution:-

In order to convert a fraction into a percentage multiply the fraction by 100 and put the percent sign %.

= (1/8) × 100 %

= 100/8 %

= 12.5%

(b) 5/4

Solution:-

In order to convert a fraction into a percentage multiply the fraction by 100 and put the percent sign %.

= (5/4) × 100 %

= 500/4 %

= 125%

(c) 3/40

Solution:-

In order to convert a fraction into a percentage multiply the fraction by 100 and put the percent sign %.

= (3/40) × 100 %

= 300/40 %

= 30/4 %

= 7.5%

(d) 2/7

Solution:-

In order to convert a fraction into a percentage multiply the fraction by 100 and put the percent sign %.

= (2/7) × 100 %

= 200/7 %

= $28\frac{4}{7}$%

2. Convert the given decimal fraction to percent.

(a) 0.65

Solution:-

First we have to remove the decimal point,

= 65/100

Now,

Multiply by 100 and put the percent sign %.

We have,

= (65/100) × 100

= 65%

(b) 2.1

Solution:-

First we have to remove the decimal point,

= 21/10

Now,

Multiply by 100 and put the percent sign %.

We have,

= (21/10) × 100

=210%

(c) 0.02

Solution:-

First we have to remove the decimal point,

= 2/100

Now,

Multiply 100 and put the percent sign %.

We have,

= (2/100) × 100

= 2%

(d) 12.35

Solution:-

First we have to remove the decimal point,

= 1235/100

Now,

Multiply by 100 and put the percent sign %.

We have,

= (1235/100) × 100)

= 1235%

3. Estimate what part of the figures is coloured and hence find the per cent which is coloured.

(i)

Solution:-

By observing the given figure,

We can able to identify that 1 part is shaded out of 4 equal parts.

It is represented by a fraction = ¼

Then,

= ¼ × 100

= 100/4

= 25%

Hence, 25% of figure is coloured.

(ii)

Solution:-

By observing the given figure,

We can able to identify that 3 part is shaded out of 5 equal parts.

It is represented by a fraction = 3/5

Then,

= (3/5) × 100

= 300/5

= 60%

Hence, 60% of figure is coloured.

(iii)

Solution:-

By observing the given figure,

We can able to identify that 3 part is shaded out of 8 equal parts.
It is represented by a fraction = 3/8
Then,
= (3/8) × 100
= 300/8
= 37.5%
Hence, 37.5% of figure is coloured.

4. Find:

(a) 15% of 250

Solution:-

We have,
= (15/100) × 250
= (15/10) × 25
= (15/2) × 5
= (75/2)
= 37.5

(b) 1% of 1 hour

Solution:-

We know that, 1 hour = 60 minutes
Then,
1% of 60 minutes
1 minute = 60 seconds
60 minutes = 60 × 60 = 3600 seconds
Now,
1% of 3600 seconds
= (1/100) × 3600
= 1 × 36
= 36 seconds

(c) 20% of □ 2500

Solution:-

We have,
= (20/100) × 2500
= 20 × 25
= □ 500

(d) 75% of 1 kg

Solution:-

We know that, 1 kg = 1000 g

Then,

75% of 1000 g

= (75/100) × 1000

= 75 × 10

= 750 g

5. Find the whole quantity if

(a) 5% of it is 600

Solution:-

Let us assume the whole quantity be x,

Then,

(5/100) × (x) = 600

X = 600 × (100/5)

X = 60000/5

X = 12000

(b) 12% of it is □ 1080.

Solution:-

Let us assume the whole quantity be x,

Then,

(12/100) × (x) = 1080

X = 1080 × (100/12)

X = 540 × (100/6)

X = 90 × 100

X = □ 9000

(c) 40% of it is 500k km

Solution:-

Let us assume the whole quantity be x,

Then,

(40/100) × (x) = 500

X = 500 × (100/40)

X = 500 × (10/4)

X = 500 × 2.5

X = 1250 km

(d) 70% of it is 14 minutes

Solution:-

Let us assume the whole quantity be x,

Then,

(70/100) × (x) = 14

X = 14 × (100/70)

X = 14 × (10/7)

X = 20 minutes

(e) 8% of it is 40 liters

Solution:-

Let us assume the whole quantity be x,

Then,

(8/100) × (x) = 40

X = 40 × (100/8)

X = 40 × (100/8)

X = 40 × 12.5

X = 500 liters

6. Convert given percent to decimal fractions and also fractions in simplest forms:

(a) 25%

Solution:-

First convert the given percentage into fraction and then put the fraction into decimal form.

= (25/100)

= ¼

= 0.25

(b) 150%

Solution:-

First convert the given percentage into fraction and then put the fraction into decimal form.

= (150/100)

= 3/2

= 1.5

(c) 20%

Solution:-

First convert the given percentage into fraction and then put the fraction into decimal form.

= (20/100)

= 1/5

= 0.2

(d) 5%

Solution:-

First convert the given percentage into fraction and then put the fraction into decimal form.

= (5/100)

= 1/20

= 0.05

7. In a city, 30% are females, 40% are males and remaining are children. What per cent are children?

Solution:-

From the question, it is given that

Percentage of female in a city =30%

Percentage of male in a city = 40%

Total percentage of male and female both = 40% + 30%

= 70%

Now we have to find the percentage of children = 100 – 70

= 30%

So, 30% are children.

8. Out of 15,000 voters in a constituency, 60% voted. Find the percentage of voters who did not vote. Can you now find how many actually did not vote?

Solution:-

From the question, it is given that

Total number of voters in the constituency = 15000

Percentage of people who voted in the election = 60%

Percentage of people who did not voted in the election = 100 – 60

= 40%

Total number of voters who did not voted in the election = 40% of 15000

= (40/100) × 15000

= 0.4 × 15000

= 6000 voters

∴ 6000 voters did not vote.

9. Meeta saves □ 4000 from her salary. If this is 10% of her salary. What is her salary?

Solution:-

Let us assume Meeta’s salary be □ x,

Then,

10% of □ x = □ 4000

(10/100) × (x) = 4000

X = 4000 × (100/10)

X = 4000 × 10

X = □ 40000

∴ Meeta’s salary is □ 40000.

10. A local cricket team played 20 matches in one season. It won 25% of them. How many matches did they win?

Solution:-

From the question, it is given that

Total matches played by a local team = 20

Percentage of matches won by the local team = 25%

Then,

Number of matches won by the team = 25% of 20

= (25/100) × 20

= 25/5

= 5 matches.

∴The local team won 5 matches out of 20 matches.