EXERCISE 7.2

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1. Write each of the following as decimals:
(i) Three tenths
(ii) Two ones and five tenths
(iii) Thirty and one tenths
(iv) Twenty two and six tenths
(v) One hundred, two ones and three tenths
Solution:

(i) Three tenths
It can be written as
3/10 = 0.3

(ii) Two ones and five tenths
It can be written as
2 + 5/10 = 2.5

(iii) Thirty and one tenths
It can be written as
30 + 1/10 = 30.1

(iv) Twenty two and six tenths
It can be written as
22 + 6/10 = 22.6

(v) One hundred, two ones and three tenths
It can be written as
100 + 2 + 3/10 = 102.3

2. Write each of the following as decimals:
(i) 30 + 6 + 2/10
(ii) 700 + 5 + 7/10
(iii) 200 + 60 + 5 + 1/10
(iv) 200 + 70 + 9 + 5/10
Solution:

(i) 30 + 6 + 2/10
In the above question
We know that
3 tens, 6 ones and 2 tenths
Hence, the decimal is 36.2.

(ii) 700 + 5 + 7/10
In the above question
We know that
7 hundreds, 5 ones and 7 tenths
Hence, the decimal is 705.7.

(iii) 200 + 60 + 5 + 1/10

In the above question
We know that
2 hundreds, 6 tens, 5 ones and 1 tenths.
Hence, the decimal is 265.1.

(iv) 200 + 70 + 9 + 5/10
In the above question
We know that
2 hundreds, 7 tens, 9 ones and 5 tenths
Hence, the decimal is 279.5.

3. Write each of the following as decimals:
(i) 22/10
(ii) 3/2
(iii) 2/5
Solution:

(i) 22/10
Here the denominator is ten
Hence, the decimal is 2.2

(ii) 3/2
Multiplying the fraction by 5
We get
(3/2) × (5/5) = 15/10 = 1.5

(iii) 2/5
Multiplying the fraction by 10
We get
(2/5) × (2/2) = 4/10 = 0.4

4. Write each of the following as decimals:
(i) 40 2/5
(ii) 39 2/10
(iii) 4 3/5
(iv) 25 1/2
Solution:

(i) 40 2/5
In order to write in decimal we should make the denominator 10
So we get
40 + [(2/5) × (2/2)] = 40 + 4/10 = 40.4

(ii) 39 2/10
It can be written as
39 + 2/10 = 39 + 0.2 = 39.2

(iii) 4 3/5
In order to write in decimal we should make the denominator 10
So we get

4 + [(3/5) × (2/2)] = 4 + 6/10 = 4.6

(iv) 25 1/2
In order to write in decimal we should make the denominator 10
So we get
25+ [(1/2) × (5/5)] = 25 + 5/10 = 25.5

5. Write the following decimals as fractions. Reduce the fractions to lowest form:
(i) 3.8
(ii) 21.2
(iii) 6.4
(iv) 1.0
Solution:

(i) 3.8
It can be written as
= 3 + 8 tenths
On further calculation
= 3 + 8/10
We get
= 3(10/10) + 8/10
By further simplification
= 30/10 + 8/10
= 38/10
So we get
= 19/5

(ii) 21.2
It can be written as
= 21 + 2 tenths
On further calculation
= 21 + 2/10
We get
= 21(10/10) + 2/10
By further simplification
= 210/10 + 2/10
= 212/10
So we get
= 106/5

(iii) 6.4
It can be written as
= 6 + 4 tenths
On further calculation
= 6 + 4/10
We get
= 6(10/10) + 4/10
By further simplification
= 60/10 + 4/10
= 64/10

So we get
= 32/5

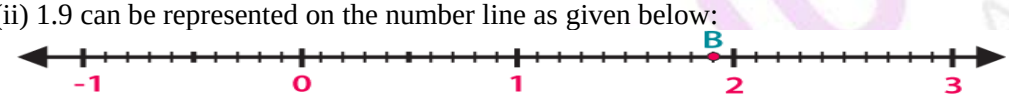
(iv) 1.0
Here, the number after decimal is zero so the fraction is 1.

6. Represent the following decimal numbers on the number line:
(i) 0.2
(ii) 1.9
(iii) 1.1
(iv) 2.5
Solution:

(i) 0.2 can be represented on the number line as given below:

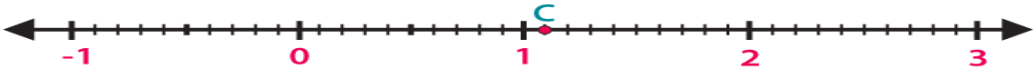
A = 0.2

(ii) 1.9 can be represented on the number line as given below:



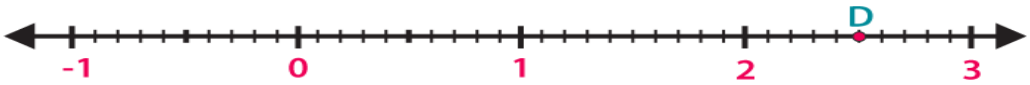
B = 1.9

(iii) 1.1 can be represented on the number line as given below:



C = 1.1

(iv) 2.5 can be represented on the number line as given below:



7. Between which two whole numbers on the number line are the given numbers? Which one is nearer the number?
(i) 0.8
(ii) 5.1
(iii) 2.6
(iv) 6.4
(v) 9.0
(vi) 4.9
Solution:

(i) We know that
0.8 is 8 units from 0 and 2 units from 1
Hence, it is nearer to 1.

(ii) We know that

5.1 is 1 unit from 5 and 9 units from 6
Hence, it is nearer to 5.

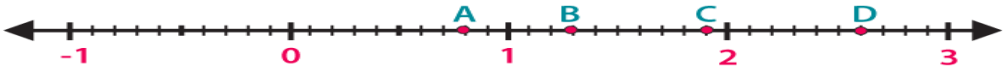
(iii) We know that
2.6 is 6 units from 2 and 4 units from 3
Hence, it is nearer to 3.

(iv) We know that
6.4 is 4 units from 6 and 6 units from 7
Hence, it is nearer to 6.

(v) We know that
9.0 is a whole number
Hence, it is nearer to 9.

(vi) We know that
4.9 is 9 units from 4 and 1 unit from 5
Hence, it is nearer to 5.

8. Write the decimal number represented by the points on the given number line: A, B, C, D.



Solution:

A – We know that A is at eighth place between the numbers 0 and 1
Hence, the decimal is 0.8

B – We know that B is at third place between the numbers 1 and 2
Hence, the decimal is 1.3

C – We know that C is at second place between the numbers 2 and 3
Hence, the decimal is 2.2

D – We know that D is at ninth place between the numbers 2 and 3
Hence, the decimal is 2.9