EXERCISE 3.1 **PAGE NO: 3.4**

1. Write each of the following as decimals:
(i) (8/100)
(ii) 20 + (9/10) + (4/100)
(iii) 23 + (2/10) + (6/1000)

Solution:
(i) Given (8/100)
Mark the decimal point two places from right to left
(8/100) = 0.08

(ii) Given 20 + (9/10) + (4/100)
First convert the fractions (9/10) and (4/100) to decimals
Consider (9/10)
Mark the decimal point one place from right to left
(9/10) = 0.9
Now consider (4/100)
Mark the decimal point two places from right to left
(4/100) = 0.04
20 + (9/10) + (4/100) = 20 + 0.9 + 0.04
= 20.94

(iii) Given 23 + (2/10) + (6/1000)
First convert the fractions (2/10) and (6/1000) to decimals
Consider (2/10)
Mark the decimal point one place from right to left
(2/10) = 0.2
Now consider (6/1000)
Mark the decimal point three places from right to left
(6/1000) = 0.006
23 + (2/10) + (6/1000) = 23 + 0.2 + 0.006
= 23.206

2. Convert each of the following fractions as decimals:
(i) 0.04
(ii) 2.34

(iii) 0.342
(iv) 17.38

Solution:
(i) Given 0.04
Here we have to convert given decimals into fractions
0.04 can be written as (0.04/1)
Now multiply both numerator and denominator by 100 then we get
(0.04/1) = (0.04 × 100 /1 × 100)
= (4/100)
= (1/25)

(ii) Given 2.34
Here we have to convert given decimals into fractions
2.34 can be written as (2.34/1)
Now multiply both numerator and denominator by 100 then we get
(2.34/1) = (2.34 × 100 /1 × 100)
= (234/100)
= (117/50)

(iii) Given 0.342
Here we have to convert given decimals into fractions
0.342 can be written as (0.342/1)
Now multiply both numerator and denominator by 1000 then we get
(0.342/1) = (0.342 × 1000 /1 × 1000)
= (342/1000)
= (171/500)

(iv) Given 17.38
Here we have to convert given decimals into fractions
17.38 can be written as (17.38/1)
Now multiply both numerator and denominator by 100 then we get
(17.38/1) = (17.38 × 100 /1 × 100)
= (1738/100)
= (869/50)

3. Express the following fractions as decimals:

(i) (23/10)
(ii) 25 (1/8)
(iii) 39 (7/35)
(iv) 15 (1/25)

Solution:
(i) Given (23/10)
Divide 23 by 10 we get
(23/10) = 2.3

(ii) Given 25 (1/8)
25 (1/8) can be written as
25 (1/8) = 25 + (1/8)
Consider (1/8),
Now multiply both numerator and denominator by 125 to get 1000 as denominator
25 (1/8) = 25 + (1/8) = 25 + (1 × 125 /8 × 125)
= 25 + (125/1000)
= 25 + 0.125
= 25.125

(iii) Given 39 (7/35)
First convert given mixed fraction 39 (7/35) into improper fraction
39 (7/35) = 1372/35
By dividing we get
39 (7/35) = 39.2

(iv) Given 15 (1/25)
15 (1/25) can be written as
15 (1/25) = 15 + (1/25)
Consider (1/25),
Now multiply both numerator and denominator by 4 to get 100 as denominator
15 (1/25) = 15 + (1/25) = 15 + (1 × 4 /25 × 4)
= 15 + (4/100)
= 15 + 0.04
= 15.04

4. Add the following:

(i) 41.8, 39.24, 5.01 and 62.6
(ii) 18.03, 146.3, .829 and 5.324

Solution:
(i) Given 41.8, 39.24, 5.01 and 62.6

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   41.8
   39.2
    5.01
+ 62.6
 148.65
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(ii) Given 18.03, 146.3, 0.829 and 5.324

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    18.03
   146.3
     0.829
+    5.324
   170.483
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5. Find the value of:
(i) 9.756 – 6.28
(ii) 48.1 – 0.37
(iii) 108.032 – 86.8
(iv) 100 – 26.32

Solution:
(i) Given 9.756 – 6.28

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9.756
- 6.28
 3.476
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(ii) Given 48.1 – 0.37

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   48.1
 - 0.37
   47.73
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(iii) Given 108.032 – 86.8

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   108.032
-   86.8
    21.232
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(iv) Given 100 – 26.32

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    100.00
-    26.32
     73.68
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6. Take out of 3.547 from 7.2

Solution:
Given 3.547 from 7.2

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   7.2
-  3.547
   3.653
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7. What is to be added to 36.85 to get 59.41?

Solution:
Given 36.85 and 59.41
Let the unknown number be x
x + 36.85 = 59.41
x = 59.41 – 36.85
x = 22.56
Hence 22.56 is to be added to 36.85 to get 59.41

8. What is to be subtracted from 17.1 to get 2.051?

Solution:
Let the unknown number be x
Given that x is to be subtracted from 17.1 to get 2.051
17.1 – x = 2.051
17.1 - 2.051 = x
x = 17.1 - 2.051
x = 15.049

9. By how much should 34.79 be increased to get 70.15?

Solution:
Let x be the unknown number
x + 34.79 = 70.15
x = 70.15 − 34.79
x = 35.36
35.36 should be increased to 34.79 to get 70.15

10. By how much should 59.71 be decreased to get 34.58?

Solution:
Let x be the unknown number
59.71 − x =34.58
59.71 − 34.58 = x
x = 59.71 − 34.58
x = 25.13
25.13 should be decreased by 59.71 to get 34.58