

### EXERCISE 15(B)

1. Add the following:

- (i) 0.243, 2.47 and 3.009
- (ii) 0.0736, 0.6095 and 0.9107
- (iii) 1.01, 257 and 0.200
- (iv) 18, 200.35, 11.72 and 2.3
- (v) 0.586, 0.0586 and 0.00586

**Solution:**

To add the decimal number, first convert the decimals into like decimal numbers and then add

(i) 0.243, 2.47 and 3.009

To add 0.243, 2.47 and 3.009,

Convert the decimals into like decimals by adding zeros

Like decimals are 0.243, 2.470 and 3.009

0.243

2.470 +

3.009 +

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5.722

Hence, the addition of the given decimal numbers is 5.722

(ii) 0.0736, 0.6095 and 0.9107

To add 0.0736, 0.6095 and 0.9107

Here, all the numbers are like decimal numbers

0.0736

0.6095 +

0.9107 +

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1.5938

Hence, the addition of the given numbers is 1.5938

(iii) 1.01, 257 and 0.200

To add 1.01, 257 and 0.200

Convert the decimals into like decimal by adding zeros

Like decimals are 1.010, 257.000 and 0.200

1.010

257.000 +

0.200 +

258.210

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Hence, the addition of the given decimal numbers is 258.210

(iv) 18, 200.35, 11.72 and 2.3

To add 18, 200.35, 11.72 and 2.3

Convert the decimals into like decimals by adding zeros

Like decimals are 18.00, 200.35, 11.72 and 2.30

$$\begin{array}{r} 18.00 \\ 200.35 + \\ 11.72 + \\ 2.30 + \\ \hline \end{array}$$

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232.37

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Hence, the addition of the given decimal numbers is 232.37

(v) 0.586, 0.0586 and 0.00586

To add 0.586, 0.0586 and 0.00586

Convert the decimals into like decimals by adding zeros

Like decimals are 0.58600, 0.05860 and 0.00586

$$\begin{array}{r} 0.58600 \\ 0.05860 + \\ 0.00586 + \\ \hline \end{array}$$

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0.65046

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Hence, the addition of the given decimal numbers is 0.65046

**2. Find the value of:**

(i)  $6.8 - 2.64$

(ii)  $2 - 1.0304$

(iii)  $0.1 - 0.08$

(iv)  $0.83 - 0.342$

**Solution:**

To subtract the decimal numbers, first convert the decimal into like decimal numbers and then subtract

(i)  $6.8 - 2.64$

Convert the decimals into like decimal numbers by adding zeros

Like decimals are 6.80 and 2.64

$$6.80 -$$

2.64

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4.16

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Hence, the subtraction of the decimal numbers is 4.16

(ii)  $2 - 1.0304$

Convert the decimals into like decimal numbers by adding zeros

Like decimals are 2.0000 and 1.0304

2.0000 –

1.0304

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0.9696

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Hence, the subtraction of the decimal numbers is 0.9696

(iii)  $0.1 - 0.08$

Convert the decimals into like decimal numbers by adding zeros

Like decimals are 0.10 and 0.08

0.10

0.08 –

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0.02

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Hence, the subtraction of the decimal numbers is 0.02

(iv)  $0.83 - 0.342$

Convert the decimals into like decimal numbers by adding zeros

Like decimals are 0.830 and 0.342

0.830

0.342 –

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0.488

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Hence, the subtraction of the decimal numbers is 0.488

### 3. Subtract:

(i) 0.43 from 0.97

(ii) 2.008 from 22.1058

(iii) 0.18 from 0.6

(iv) 1.002 from 17

(v) 83 from 92.05

**Solution:**

To subtract the decimal numbers, first convert the decimals into like decimal numbers and then subtract

(i) 0.43 from 0.97

The given decimals are like decimals

$$\begin{array}{r} 0.97 \\ 0.43 - \\ \hline \end{array}$$

$$0.54$$

Hence, the subtraction of the decimal numbers is 0.54

(ii) 2.008 from 22.1058

To subtract 2.008 from 22.1058

Convert the decimals into like decimals by adding zeros

Like decimals are 22.1058 and 2.0080

$$\begin{array}{r} 22.1058 \\ 2.0080 - \\ \hline \end{array}$$

$$20.0978$$

Hence, the subtraction of the decimal numbers is 20.0978

(iii) 0.18 from 0.6

To subtract 0.18 from 0.6

Convert the decimals into like decimals by adding zeros

Like decimals are 0.60 and 0.18

$$\begin{array}{r} 0.60 \\ 0.18 - \\ \hline \end{array}$$

$$0.42$$

Hence, the subtraction of the decimal numbers is 0.42

(iv) 1.002 from 17

To subtract 1.002 from 17

Convert the decimals into like decimals by adding zeros

Like decimals are 17.000 and 1.002

$$\begin{array}{r} 17.000 \\ 1.002 - \\ \hline \end{array}$$

$$15.998$$

Hence, the subtraction of the decimal numbers is 15.998

(v) 83 from 92.05

To subtract 83 from 92.05

Convert the decimals into like decimals by adding zeros

Like decimals are 92.05 and 83.00

92.05

83.00 –

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9.05

Hence, the subtraction of the decimal numbers is 9.05

#### 4. Simplify:

(i)  $3.5 - 2.43 + 0.075$

(ii)  $7.84 + 0.3 - 4.016$

(iii)  $2.987 - 1.25 - 0.54$

(iv)  $52.9 - 231.666 + 204$

(v)  $8.57 - 6.4432 - 1.70 + 0.683$

**Solution:**

To simplify the expression, first convert the decimal numbers into like decimals and perform addition and subtraction

(i)  $3.5 - 2.43 + 0.075$

To simplify  $3.5 - 2.43 + 0.075$

Convert the decimals into like decimal numbers

Like decimals are 3.500, 2.430 and 0.075

$$= 3.500 - 2.430 + 0.075$$

$$= 3.500 + 0.075 - 2.430$$

$$= 3.575 - 2.430$$

$$= 1.145$$

Therefore, the simplification of the given expression is 1.145

(ii)  $7.84 + 0.3 - 4.016$

To simplify  $7.84 + 0.3 - 4.016$

Convert the decimals into like decimal numbers

Like decimals are 7.840, 0.300 and 4.016

$$= 7.840 + 0.300 - 4.016$$

$$= 8.140 - 4.016$$

$$= 4.124$$

Therefore, the simplification of the given expression is 4.124

(iii)  $2.987 - 1.25 - 0.54$

To simplify  $2.987 - 1.25 - 0.54$

Convert the decimals into like decimal numbers

Like decimals are 2.987, 1.250 and 0.540

$$= 2.987 - 1.250 - 0.540$$

$$= 1.737 - 0.540$$

$$= 1.197$$

Therefore, the simplification of the given expression is 1.197

(iv)  $52.9 - 231.666 + 204$

To simplify  $52.9 - 231.666 + 204$

Convert the decimals into like decimal numbers

Like decimals are 52.900, 231.666 and 204.000

$$= 52.900 - 231.666 + 204.000$$

$$= 256.900 - 231.666$$

$$= 25.234$$

Therefore, the simplification of the given expression is 25.234

(v)  $8.57 - 6.4432 - 1.70 + 0.683$

To simplify  $8.57 - 6.4432 - 1.70 + 0.683$

Convert the decimals into like decimal numbers

Like decimals are 8.5700, 6.4432, 1.7000 and 0.6830

$$= 8.5700 - 6.4432 - 1.7000 + 0.6830$$

$$= 9.253 - 8.1432$$

$$= 1.1098$$

Therefore, the simplification of the given expression is 1.1098

**5. From the sum of 75.75 and 4.9 subtract 28.465**

**Solution:**

To subtract 28.465 from the sum of 75.75 and 4.9

To add 75.75 and 4.9

Convert the numbers into like decimal numbers

Like decimals are 75.75 and 4.90

$$75.75$$

$$4.90 +$$

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$$80.65$$

Now, to subtract 28.465 from 80.65

Convert the numbers into like decimal numbers

Like decimals are 28.465 and 80.650

$$\begin{array}{r} 80.650 \\ 28.465 - \\ \hline \end{array}$$

$$\hline 52.185$$

Hence, the simplification of the sum and subtraction is 52.185

**6. Subtract the sum of 8.14 and 12.9 from 32.7**

**Solution:**

To subtract the sum of 8.14 and 12.9 from 32.7

To add 8.14 and 12.9

Convert the numbers into like decimal numbers

Like decimals are 8.14 and 12.90

$$\begin{array}{r} 8.14 \\ 12.90 + \\ \hline \end{array}$$

$$\hline 21.04$$

To subtract 21.04 from 32.7

Convert the numbers into like decimal numbers

Like decimals are 21.04 and 32.70

$$\begin{array}{r} 32.70 \\ 21.04 - \\ \hline \end{array}$$

$$\hline 11.66$$

Therefore, the simplification of the sum and subtraction is 11.66

**7. Subtract the sum of 34.27 and 159.8 from the sum of 20.937 and 200.6**

**Solution:**

To subtract the sum of 34.27 and 159.8 from the sum of 20.937 and 200.6

To add 34.27 and 159.8

Convert the numbers into like decimal numbers

Like decimals are 34.27 and 159.80

$$\begin{array}{r} 34.27 \\ 159.80 + \\ \hline \end{array}$$

$$\hline 194.07$$

To add 20.937 and 200.6 convert the numbers into like decimal numbers

Like decimals are 20.937 and 200.600

$$\begin{array}{r} 20.937 \\ 200.600 + \\ \hline \end{array}$$

221.537

To subtract 194.07 from 221.537

Convert the numbers into like decimal numbers

$$\begin{array}{r} 221.537 \\ 194.070 - \\ \hline \end{array}$$

27.467

Hence, the subtraction of above decimal numbers is 27.467

**8. From the sum of 2.43 and 4.349 subtract the sum of 0.8 and 3.15**

**Solution:**

To subtract the sum of 0.8 and 3.15 from sum of 2.43 and 4.349

To add 0.8 and 3.15

Convert the numbers into like decimal numbers

Like decimals are 0.80 and 3.15

$$\begin{array}{r} 0.80 \\ 3.15 + \\ \hline \end{array}$$

3.95

To add 2.43 and 4.349

Convert the numbers into like decimal numbers

$$\begin{array}{r} 2.430 \\ 4.349 + \\ \hline \end{array}$$

6.779

To subtract 3.95 from 6.779

Convert the numbers into like decimal numbers

$$\begin{array}{r} 6.779 \\ 3.950 - \\ \hline \end{array}$$



2.829

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Therefore, the subtraction of above decimal numbers is 2.829

**9. By how much does the sum of 18.0495 and 34.9644 exceed the sum of 7.6752 and 24.876?**

**Solution:**

To obtain the difference between the sum of 18.0495 and 34.9644 and the sum of 7.6752 and 24.876

Now, to add 18.0495 and 34.9644

Convert the numbers into like decimal numbers

The given decimals are like decimals

18.0495

34.9644 +

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53.0139

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Now, to add 7.6752 and 24.876

Convert the numbers into like decimal numbers

Like decimals are 7.6752 and 24.8760

7.6752

24.8760 +

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32.5512

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To subtract 32.5512 from 53.0139

Convert the numbers into like decimal numbers

The given decimals are like decimals

53.0139

32.5512 –

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20.4627

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Hence, the sum exceed the other decimal numbers by 20.4627

**10. What least number must be added to 89.376 to get 1000?**

**Solution:**

The number to be added to 89.376 to get 1000

Subtract 89.376 from 1000

Convert the decimals into like decimal numbers

Like decimals are 89.376 and 1000.000

1000.000

89.376 –

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910.624

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Therefore, the number to be added to 89.376 to obtain 1000 is 910.624

