

EXERCISE 4B

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1. Add:

(i) 0.5 and 0.37

(ii) 3.8 and 8.7

(iii) 0.02, 0.008 and 0.309

(iv) 0.4136, 0.3195 and 0.52

(v) 9.25, 3.4 and 6.666

(vi) 3.007, 0.587 and 18.341

(vii) 0.2, 0.02 and 2.0002

(viii) 6.08, 60.8, 0.608 and 0.0608

(ix) 29.03, 0.0003, 0.3 and 7.2

(x) 3.4, 2.025, 9.36 and 3.6221

Solution:

(i) 0.5 and 0.37

$$\begin{array}{r} 0.5 \\ + 0.37 \\ \hline 0.87 \end{array}$$

So we get

$$0.5 + 0.37 = 0.87$$

(ii) 3.8 and 8.7

$$\begin{array}{r} 3.8 \\ + 8.7 \\ \hline 12.5 \end{array}$$

So we get

$$3.8 + 8.7 = 12.5$$

(iii) 0.02, 0.008 and 0.309

$$\begin{array}{r} 0.02 \\ 0.008 \\ + 0.309 \\ \hline 0.337 \end{array}$$

So we get

$$0.02 + 0.008 + 0.309 = 0.337$$

(iv) 0.4136, 0.3195 and 0.52

$$\begin{array}{r} 0.4136 \\ 0.3195 \\ + 0.52 \\ \hline 1.2531 \end{array}$$

So we get
 $0.4136 + 0.3195 + 0.52 = 1.2531$

(v) 9.25, 3.4 and 6.666

$$\begin{array}{r} 9.25 \\ 3.4 \\ + 6.666 \\ \hline 19.316 \end{array}$$

So we get
 $9.25 + 3.4 + 6.666 = 19.316$

(vi) 3.007, 0.587 and 18.341

$$\begin{array}{r} 3.007 \\ 0.587 \\ + 18.341 \\ \hline 21.935 \end{array}$$

So we get
 $3.007 + 0.587 + 18.341 = 21.935$

(vii) 0.2, 0.02 and 2.0002

$$\begin{array}{r} 0.2 \\ 0.02 \\ + 2.0002 \\ \hline 2.2202 \end{array}$$

So we get
 $0.2 + 0.02 + 2.0002 = 2.2202$

(viii) 6.08, 60.8, 0.608 and 0.0608

$$\begin{array}{r} 6.08 \\ 60.8 \\ 0.608 \\ + 0.0608 \\ \hline 67.5488 \end{array}$$

So we get

$$6.08 + 60.8 + 0.608 + 0.0608 = 67.5488$$

(ix) 29.03, 0.0003, 0.3 and 7.2

$$\begin{array}{r} 29.03 \\ 0.0003 \\ 0.3 \\ + 7.2 \\ \hline 36.5303 \end{array}$$

So we get

$$29.03 + 0.0003 + 0.3 + 7.2 = 36.5303$$

(x) 3.4, 2.025, 9.36 and 3.6221

$$\begin{array}{r} 3.4 \\ 2.025 \\ 9.36 \\ + 3.6221 \\ \hline 18.4071 \end{array}$$

So we get

$$3.4 + 2.025 + 9.36 + 3.6221 = 18.4071$$

2. Subtract the first number from the second:

(i) 5.4, 9.8

(ii) 0.16, 4.3

(iii) 0.82, 8.6

(v) 2.237, 9.425

(vi) 41 .03, 59.46

(vii) 3.92, 26.86

(viii) 4.73, 8.5

(ix) 12.63, 36.2

(x) 0.845, 3.71

Solution:

(i) 5.4, 9.8

It can be written as

$$9.8 - 5.4 = 4.4$$

$$\begin{array}{r} 9.8 \\ - 5.4 \\ \hline 4.4 \end{array}$$

(ii) 0.16, 4.3

It can be written as

$$4.3 - 0.16 = 4.14$$

$$\begin{array}{r} 4.3 \\ -0.16 \\ \hline 4.14 \end{array}$$

(iii) 0.82, 8.6

It can be written as

$$8.6 - 0.82 = 7.78$$

$$\begin{array}{r} 8.6 \\ -0.82 \\ \hline 7.78 \end{array}$$

(v) 2.237, 9.425

It can be written as

$$9.425 - 2.237 = 7.188$$

$$\begin{array}{r} 9.425 \\ -2.237 \\ \hline 7.188 \end{array}$$

(vi) 41.03, 59.46

It can be written as

$$59.46 - 41.03 = 18.43$$

$$\begin{array}{r} 59.46 \\ -41.03 \\ \hline 18.43 \end{array}$$

(vii) 3.92, 26.86

It can be written as

$$26.86 - 3.92 = 22.94$$

$$\begin{array}{r} 26.86 \\ - 3.92 \\ \hline 22.94 \end{array}$$

(viii) 4.73, 8.5

It can be written as

$$8.5 - 4.73 = 3.77$$

$$\begin{array}{r} 8.5 \\ -4.73 \\ \hline 3.77 \end{array}$$

(ix) 12.63, 36.2

It can be written as

$$36.2 - 12.63 = 23.57$$

$$\begin{array}{r} 36.2 \\ -12.63 \\ \hline 23.57 \end{array}$$

(x) 0.845, 3.71

It can be written as

$$3.71 - 0.845 = 2.865$$

$$\begin{array}{r} 3.71 \\ - 0.845 \\ \hline 2.865 \end{array}$$

3. Simplify:

(i) $28.796 - 13.42 - 2.555$

(ii) $93.354 - 62.82 - 13.045$

(iii) $36 - 18.59 - 3.2$

(iv) $86 + 16.95 - 3.0042$

(v) $32.8 - 13 - 10.725 + 3.517$

(vi) $4000 - 30.51 - 753.101 - 69.43$

(vii) $0.1835 + 163.2005 - 25.9 - 100$

(viii) $38.00 - 30 + 200.200 - 0.230$

(ix) $555.555 + 55.555 - 5.55 - 0.555$

Solution:

(i) $28.796 - 13.42 - 2.555$

It can be written as

$$= 28.796 - (13.42 + 2.555)$$

On further calculation

$$= 28.796 - 15.975$$

$$= 12.821$$

$$\begin{array}{r} 28.796 \\ - 15.975 \\ \hline 12.821 \end{array} \qquad \begin{array}{r} 13.42 \\ + 2.555 \\ \hline 15.975 \end{array}$$

(ii) $93.354 - 62.82 - 13.045$

It can be written as

$$= 93.354 - (62.82 + 13.045)$$

On further calculation

$$= 93.354 - 75.865$$

$$= 17.489$$

$$\begin{array}{r} 93.354 \\ - 75.865 \\ \hline 17.489 \end{array} \qquad \begin{array}{r} 62.82 \\ + 13.045 \\ \hline 75.865 \end{array}$$

(iii) $36 - 18.59 - 3.2$

It can be written as

$$= 36 - (18.59 + 3.2)$$

On further calculation

$$= 36 - 21.79$$

$$= 14.21$$

$$\begin{array}{r} 36 \\ -21.79 \\ \hline 14.21 \end{array} \qquad \begin{array}{r} 18.59 \\ + 3.2 \\ \hline 21.79 \end{array}$$

(iv) $86 + 16.95 - 3.0042$

It can be written as

$$= 102.95 - 3.0042$$

On further calculation

$$= 99.9458$$

$$\begin{array}{r} 102.95 \\ -3.0042 \\ \hline 99.9458 \end{array} \qquad \begin{array}{r} 86 \\ + 16.95 \\ \hline 102.95 \end{array}$$

(v) $32.8 - 13 - 10.725 + 3.517$

It can be written as

$$= (32.8 + 3.517) - (13 + 10.725)$$

On further calculation

$$= 36.317 - 23.725$$

$$= 12.592$$

$$\begin{array}{r} 13 \\ +10.725 \\ \hline 23.725 \end{array} \qquad \begin{array}{r} 32.8 \\ + 3.517 \\ \hline 36.317 \end{array} \qquad \begin{array}{r} 36.317 \\ -23.725 \\ \hline 12.592 \end{array}$$

(vi) $4000 - 30.51 - 753.101 - 69.43$

It can be written as

$$= 4000 - (30.51 + 753.101 + 69.43)$$

On further calculation

$$= 4000 - 853.041$$

$$= 3146.959$$

$$\begin{array}{r} 30.51 \\ +753.101 \\ + 69.43 \\ \hline 853.041 \end{array} \qquad \begin{array}{r} 4000 \\ -853.041 \\ \hline 3146.959 \end{array}$$

(vii) $0.1835 + 163.2005 - 25.9 - 100$

It can be written as

$$= (0.1835 + 163.2005) - (25.9 + 100)$$

On further calculation

$$= 163.2840 - 125.9$$

$$= 37.484$$

$$\begin{array}{r} 25.9 \\ + 100 \\ \hline 125.9 \end{array} \qquad \begin{array}{r} 0.1835 \\ +163.2005 \\ \hline 163.384 \end{array} \qquad \begin{array}{r} 163.384 \\ - 125.9 \\ \hline 37.484 \end{array}$$

(viii) $38.00 - 30 + 200.200 - 0.230$

It can be written as

$$= (38.00 + 200.200) - (30 + 0.230)$$

On further calculation

$$= 238.200 - 30.230$$

$$= 207.970$$

$$= 207.97$$

$$\begin{array}{r} 238.2 \\ - 30.23 \\ \hline 207.97 \end{array}$$

(ix) $555.555 + 55.555 - 5.55 - 0.555$

It can be written as

$$= (555.555 + 55.555) - (5.55 + 0.555)$$

On further calculation

$$= 611.110 - 6.105$$

$$= 605.005$$

$$\begin{array}{r} 555.555 \\ + 55.555 \\ \hline 611.11 \end{array} \qquad \begin{array}{r} 611.11 \\ - 6.105 \\ \hline 605.005 \end{array}$$

4. Find the difference between 6.85 and 0.685.

Solution:

The difference between 6.85 and 0.685 = $6.85 - 0.685$
= 6.165

$$\begin{array}{r} 6.85 \\ - 0.685 \\ \hline 6.165 \end{array}$$

5. Take out the sum of 19.38 and 56.025, then subtract it from 200.111.

Solution:

We know that the sum of 19.38 and 56.025 can be written as

$$19.38 + 56.025 = 75.405$$

$$\begin{array}{r} 19.38 \\ + 56.025 \\ \hline 75.405 \end{array}$$

We can write it as

Difference between 200.111 and 75.405

$$200.111 - 75.405 = 124.706$$

$$\begin{array}{r} 200.111 \\ - 75.405 \\ \hline 124.706 \end{array}$$

6. Add 13.95 and 1.003, and from the result, subtract the sum of 2.794 and 6.2.

Solution:

We know that addition of 13.95 and 1.003 can be written as

$$13.95 + 1.003 = 14.953$$

$$\begin{array}{r} 13.95 \\ + 1.003 \\ \hline 14.953 \end{array}$$

Similarly the sum of 2.794 and 6.2 can be written as

$$2.794 + 6.2 = 8.994$$

$$\begin{array}{r} 2.794 \\ + 6.2 \\ \hline 8.994 \end{array}$$

Here the difference between 14.953 and 8.994

$$14.953 - 8.994 = 5.959$$

$$\begin{array}{r} 14.953 \\ - 8.994 \\ \hline 5.959 \end{array}$$

7. What should be added to 39.587 to give 80.375?

Solution:

It is given that

$$\text{Sum of two numbers} = 80.375$$

$$\text{One number} = 39.587$$

$$\text{So the other number} = 80.375 - 39.587 = 40.788$$

$$\begin{array}{r} 80.375 \\ - 39.587 \\ \hline 40.788 \end{array}$$

8. What should be subtracted from 100 to give 19.29?

Solution:

It is given that

$$\text{Sum of two numbers} = 100$$

$$\text{One number} = 19.29$$

$$\text{So the other number} = 100 - 19.29 = 80.71$$

$$\begin{array}{r} 100 \\ - 19.29 \\ \hline 80.71 \end{array}$$

9. What is the excess of 584.29 over 213.95?

Solution:

It is given that

Sum of two numbers = 584.29

One number = 213.95

So the other number = $584.29 - 213.95 = 370.34$

$$\begin{array}{r} 584.29 \\ -213.95 \\ \hline 370.34 \end{array}$$

10. Evaluate:

(i) $(5.4 - 0.8) + (2.97 - 1.462)$

(ii) $(6.25 + 0.36) - (17.2 - 8.97)$

(iii) $9.004 + (3 - 2.462)$

(iv) $879.4 - (87.94 - 8.794)$

Solution:

(i) $(5.4 - 0.8) + (2.97 - 1.462)$

It can be written as

$= 4.6 + 1.508$

On further calculation

$= 6.108$

$\begin{array}{r} 5.4 \\ - 0.8 \\ \hline 4.6 \end{array}$	$\begin{array}{r} 2.97 \\ - 1.462 \\ \hline 1.508 \end{array}$	$\begin{array}{r} 4.6 \\ + 1.508 \\ \hline 6.108 \end{array}$
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(ii) $(6.25 + 0.36) - (17.2 - 8.97)$

It can be written as

$= 6.61 - 8.23$

On further calculation

$= -1.62$

$\begin{array}{r} 6.25 \\ + 0.36 \\ \hline 6.61 \end{array}$	$\begin{array}{r} 17.2 \\ - 8.97 \\ \hline 8.23 \end{array}$	$\begin{array}{r} 6.61 \\ - 8.23 \\ \hline -1.62 \end{array}$
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(iii) $9.004 + (3 - 2.462)$

It can be written as

$= 9.004 + 0.538$

On further calculation

$= 9.542$

$\begin{array}{r} 3 \\ - 2.462 \\ \hline 0.538 \end{array}$	$\begin{array}{r} 9.004 \\ + 0.538 \\ \hline 9.542 \end{array}$
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(iv) $879.4 - (87.94 - 8.794)$

It can be written as

$= 879.4 - 79.146$

On further calculation

$= 800.254$

$$\begin{array}{r} 87.94 \\ - 8.794 \\ \hline 79.146 \end{array}$$

$$\begin{array}{r} 879.4 \\ - 79.146 \\ \hline 800.254 \end{array}$$

11. What is the excess of 75 over 48.29?

Solution:

We know that the excess of 75 over 48.29 can be written as

$$\begin{array}{r} 75 \\ - 48.29 \\ \hline 26.71 \end{array}$$

Hence, the excess of 75 over 48.29 is 26.71.

12. If $A = 237.98$ and $B = 83.47$.

Find:

(i) $A - B$

(ii) $B - A$.

Solution:

(i) $A - B$

It is given that $A = 237.98$ and $B = 83.47$

Substituting the values

$$A - B = 237.98 - 83.47$$

$$A - B = 154.51$$

$$\begin{array}{r} 237.98 \\ - 83.47 \\ \hline 154.51 \end{array}$$

(ii) $B - A$

It is given that $A = 237.98$ and $B = 83.47$

Substituting the values

$$B - A = 83.47 - 237.98$$

$$B - A = -154.51$$

$$\begin{array}{r} 83.47 \\ - 237.98 \\ \hline -154.51 \end{array}$$

13. The cost of one kg of sugar increases from ₹28.47 to ₹32.65. Find the increase in cost.

Solution:

Cost of sugar = ₹28.47

Cost of sugar is raised = ₹32.65

Increase in the cost of sugar = ₹32.65 - ₹28.47 = ₹4.18

$$\begin{array}{r} 32.65 \\ - 28.47 \\ \hline 4.18 \end{array}$$