Question:1

Evaluate:

i 15 + -8

ii -16 + 9

iii -7 + -23

iv -32 + 47

v 53 + -26

vi -48 + -36

Solution:

i 15 + -8 = 7

ii -16 + 9 = –7

iii -7 + -23 = –30

iv -32 + 47 = 15

v 53 + -26 = 27

vi -48 + -36 = –84

Question:2

Find the sum of:

i 153 and – 302

ii 1005 and – 277

iii – 2035 and 297

iv – 489 and – 324

v – 1000 and 438

vi – 238 and 500

Solution:

i 153 + -302 = –149

ii 1005 + -277 = 728

iii -2035 + 297 = –1738

iv $-489 + -324 = -813$

v $-1000 + 438 = -562$

vi $-238 + 500 = 262$

Question:3

Find the additive inverse of:

i – 83
ii 256
iii 0
iv – 2001

Solution:

i Additive inverse of –83 = $--83 = 83$

ii Additive inverse of 256 = $-256 = -256$

iii Additive inverse of 0 = $-0 = 0$

iv Additive inverse of 2001 = $--2001 = 2001$

Question:4

Subtract:

i 28 from – 42
ii – 36 from 42
iii – 37 from – 53
iv – 66 from – 34
v 318 from 0
vi – 153 from – 240
vii – 64 from 0
$viii$ – 56 from 144

Solution:

i –42 – 28 = (–42) + (–28) = –70

ii 42 –(–36) = 42 + 36 = 78

iii -53 - -37 = -53 - -37 = -16

iv -34 - -66 = -34 + 66 = 32

v 0 - 318 = -318

vi -240 - -153 = -87

vii 0 - -64 = 0 + 64 = 64

$viii$ 144 - -56 = 144 + 56 = 200

Question:5

Subtract the sum of – 1032 and 878 from – 34.

Solution:

Sum of –1032 and 878 = –1032 + 878

= -154

Subtracting the sum from –34, we get

–34 – -154

= -34+ 154

= 120

Question:6

Subtract – 134 from the sum of 38 and – 87.

Solution:

First, we will calculate the sum of 38 and –87.

38 + -87 = –49

Now, subtracting –134 from the sum, we get:

–49 – -134

=-49 + 134

= 85

Question:7

Fill in the blanks:

$i\ \{-13 + 27\} + -41 = -13 + \{27 + \ldots\ldots\}$

$ii\ -26 + \{-49 + -83\} = \{-26 + -49\} + \ldots\ldots$

$iii\ 53 + -37 = -37 + \ldots\ldots$

$iv\ -68 + -76 = \ldots\ldots + -68$

$v\ -72 + \ldots\ldots = -72$

$vi\ - -83 =$ .....

$vii\ -60 - \ldots\ldots = -59$

$viii\ -31 + \ldots\ldots = -40$

Solution:

$i\ -41 \quad \because Associativeproperty$

$ii\ -83 \quad \because Associativeproperty$

$iii\ 53 \quad \because Commutativeproperty$

$iv\ -76 \quad \because Commutativeproperty$

$v\ 0 \quad \because Additiveidentity$

$vi\ 83 \quad \because Additiveinverse$

$vii\ -60 - -59 = -1$

$viii\ -40 - -31 = -9$

Question:8

Simplify:

$\{-13 - -27\} + \{-25 - -40\}$.

Solution:

$\{-13 - -27\} + \{-25 - -40\}$

$= \{-13 + 27\} + \{-25 + 40\}$

$= 14 + 15$

$= 29$

Question:9

Find $36 - -64$ and $-64 - 36$. Are they equal?

Solution:

36 – -64 = 36 + 64 = 100

Now, -64 – 36 = -64 + -36 = –100

Here, 100 $\neq$ –100

Thus, they are not equal.

Question:10

If *a* = – 8, *b* = – 7, *c* = 6, verify that (*a*+*b*) + *c* = *a* + (*b*+*c*).

Solution:

$a + b$ + c = $-8 + (-7)$ + 6 = –15 + 6 = –9

a + $b + c$ = –8 + $-7 + 6$ = –8 + -1 = –9

Hence, $a + b$ + c = a + $b + c$

$$i.e., Property of Associativity$$

Question:11

If *a* = – 9 and *b* = – 6, show that (*a*–*b*) ≠ (*b*–*a*).

Solution:

Here, $a - b$ = –9 – -6 = –3

Similarly, $b - a$ = –6 – -9 = 3

∴ (*a*–*b*) ≠ (*b*–*a*)

Question:12

The sum of two integers is – 16. If one of them is 53, find the other.

Solution:

Let the other integer be *a*. Then, we have:

53 + *a* = –16

⇒ *a* = –16 – 53 = –69

∴ The other integer is –69.

Question:13

Ths sum of two integers is 65. If one of them is – 31, find the other.

Solution:

Let the other integer be *a*.

Then, –31 + *a* = 65

⇒ *a* = 65 – -31 = 96

∴ The other integer is 96.

Question:14

The difference of an integer *a* and -6 is 4. Find the value of *a*.

Solution:

We have:

a – -6 = 4

⇒ *a* = 4 + -6 = –2

∴ *a* = –2

Question:15

Write a pair of integers whose sum gives

i zero;

ii a negative integer;

iii an integer smaller than both the integers;

iv an integer greater than both the integers;

v an integer smaller than only one of the integers.

Solution:

i Consider the integers 8 and –8. Then, we have:

8 + -8 = 0

ii Consider the integers 2 and -9. Then, we have:

2 + -9= –7, which is a negative integer.

iii Consider the integers –4 and –5. Then, we have:

-4 + -5 = –9, which is smaller than –4 and –5.

iv Consider the integers 2 and 6. Then, we have:
2 + 6 = 8, which is greater than both 2 and 6.

v Consider the integers 7 and –4. Then, we have:
7 + -4 = 3, which is smaller than 7 only.

Question:16
For each of the following statements, write T for true and F for false:

i The smallest integer is zero.
ii – 10 is greater than – 7
iii Zero is larger than every negative integer.
iv The sum of two negative integers is a negative integer.
v The sum of a negative integer and a positive integer is always a positive integer.
Solution:

i F $false$. –3, –90 and –100 are also integers. We cannot determine the smallest integer, since they are infinite.

ii F $false$. –10 is less than –7.

iii T $true$. All negative integers are less than zero.

iv T $true$.

v F $false$. Example: –9 + 2 = –7

Question:17
Multiply:

i 16 by 9
ii 18 by – 6
iii 36 by – 11
iv – 28 by 14
v – 53 by 18

vi – 35 by 0
vii 0 by – 23
$viii$ – 16 by – 12
ix – 105 by – 8
x – 36 by – 50
xi – 28 by – 1
xii 25 by – 11

Solution:

i $16 \times 9 = 144$
ii $18 \times -6 = -(18 \times 6) = -108$
iii $36 \times -11 = -(36 \times 11) = -396$
iv $-28 \times 14 = -(28 \times 14) = -392$
v $-53 \times 18 = -(53 \times 18) = -954$
vi $-35 \times 0 = 0$
vii $0 \times -23 = 0$
$viii$ $-16 \times -12 = 192$
ix $-105 \times -8 = 840$
x $-36 \times -50 = 1800$
xi $-28 \times -1 = 28$
xii $25 \times -11 = -(25 \times 11) = -275$

Question:18

Find each of the following products:

i $3 \times 4 \times -5$
ii $2 \times -5 \times -6$
iii $-5 \times -8 \times -3$
iv $-6 \times 6 \times -10$
v $7 \times -8 \times 3$
vi $-7 \times -3 \times 4$

Solution:

i $3 \times 4 \times -5 = 12 \times -5 = -60$
ii $2 \times -5 \times -6 = -10 \times -6 = 60$
iii $-5 \times -8 \times -3 = -5 \times 24 = -120$
iv $-6 \times 6 \times -10 = 6 \times 60 = 360$
v $7 \times -8 \times 3 = 21 \times -8 = -168$
vi $-7 \times -3 \times 4 = 21 \times 4 = 84$

Question:19

Find each of the following products:

i $-4 \times -5 \times -8 \times -10$

ii $-6 \times -5 \times -7 \times -2 \times -3$

iii $-60 \times -10 \times -5 \times -1$

iv $-30 \times -20 \times -5$

v $-3 \times -3 \times -3 \times$ ...6 times

vi $-5 \times -5 \times -5 \times$ ...5 times

vii $-1 \times -1 \times -1 \times$ ...200 times

$viii$ $-1 \times -1 \times -1 \times$ ...171 times

Solution:

i Since the number of negative integers in the product is even, the product will be positive.

$4 \times 5 \times 8 \times 10 = 1600$

ii Since the number of negative integers in the product is odd, the product will be negative.

$-6 \times 5 \times 7 \times 2 \times 3 = -1260$

iii Since the number of negative integers in the product is even, the product will be positive.

$60 \times 10 \times 5 \times 1 = 3000$

iv Since the number of negative integers in the product is odd, the product will be negative.

$-30 \times 20 \times 5 = -3000$

v Since the number of negative integers in the product is even, the product will be positive.

$(-3)^6 = 729$

vi Since the number of negative integers in the product is odd, the product will be negative.

$(-5)^5 = -3125$

vii Since the number of negative integers in the product is even, the product will be positive.

$(-1)^{200} = 1$

$viii$ Since the number of negative integers in the product is odd, the product will be negative.

$(-1)^{171} = -1$

Question:20

What will be the sign of the product, if we multiply 90 negative integers and 9 positive integers?

Solution:

Multiplying 90 negative integers will yield a positive sign as the number of integers is even.

Multiplying any two or more positive integers always gives a positive integer.

The product of both$the above two cases$ the positive and negative integers is also positive.

Therefore, the final product will have a positive sign.

Question:21

What will be the sign of the product, if we multiply 103 negative integers and 65 positive integers?

Solution:

Multiplying 103 negative integers will yield a negative integer, whereas 65 positive integers will give a positive integer.

The product of a negative integer and a positive integer is a negative integer.

Question:22

Simplify:

$i -8 \times 9 + -8 \times 7$

$ii\ 9 \times -13 + 9 \times -7$

$iii\ 20 \times -16 + 20 \times 14$

$iv\ -16 \times -15 + -16 \times -5$

$v\ -11 \times -15 + -11 \times -25$

$vi\ 10 \times -12 + 5 \times -12$

$vii\ -16 \times -8 + -4 \times -8$

$viii\ -26 \times 72 + -26 \times 28$

Solution:

$i\ -8 \times 9 + 7$

$$using the distributive law$$

$= -8 \times 16 = -128$

$ii\ 9 \times -13 + (-7)$

$$using the distributive law$$

$= 9 \times -20 = -180$

$iii\ 20 \times -16 + 14$ using the distributive law

$= 20 -2 = -40$

iv $-16 -15 + (-5)$ using the distributive law

$= -16 -20 = 320$

v $-11 -15 + (-25)$ using the distributive law

$= -11 -40$

$= 440$

vi $-12\ 10 + 5$ using the distributive law

$= -12\ 15 = -180$

vii $-16 + (-4)\ -8$ using the distributive law

$= -20\ -8 = 160$

viii $-26\ 72 + 28$ using the distributive law

$= -26\ 100 = -2600$

Question:23

Fill in the blanks:

i $-6 \times ..... = 6$

ii $-18 \times ..... = -18$

iii $-8 \times -9 = -9 \times .....$

iv $7 \times -3 = -3 \times .....$

v $\{-5 \times 3\} \times -6 = ... \times \{3 \times -6\}$

vi $-5 \times ..... = 0$

Solution:

i $-6 \times (x) = 6$

Thus, $x = -1$

ii 1 ∵ Multiplicative identity

iii -8 ∵ Commutative law

iv 7 ∵ Commutative law

v -5 ∵ Associative law

vi 0 ∵ Property of zero

Question:24

In a class test containing 10 questions, 5 marks are awarded for every correct answer and -2 marks are awarded for every incorrect answer and 0 for each question not attempted.

i Ravi gets 4 correct and 6 incorrect answers. What is his score?

ii Reenu gets 5 correct and 5 incorrect answers. What is her score?

iii Heena gets 2 correct and 5 incorrect answers. What is her score?

Solution:

We have 5 marks for correct answer and –2 marks for an incorrect answer.

Now, we have the following:

i Ravi's score = 4 5 + 6 –2
= 20 + –12 =8

ii Reenu's score = 5 5 + 5 –2
= 25 – 10 = 15

iii Heena's score = 2 5 + 5 –2
= 10 – 10 = 0

Question:25
Which of the following statements are true and which are false?

i The product of a positive and a negative integer is negative.
ii The product of two negative integers is a negative integer.
iii The product of three negative integers is a negative integer.
iv Every integer when multiplied with –1 gives its multiplicative inverse.
v Multiplication on integers is commutative.
vi Multiplication on integers is associative.
vii Every nonzero integer has a multiplicative inverse as an integer.
Solution:
i True.
ii False. Since the number of negative signs is even, the product will be a positive integer.
iii True. The number of negative signs is odd.
iv False. a –1 = –a, which is not the multiplicative inverse of a.
v True. $a\ b = b\ a$
vi True. ($a\ b$) $c = a$ ($b\ c$)
vii False. Every non-zero integer a has a multiplicative inverse , which is not an integer.

Question:26
Divide:

i 65 by –13
ii –84 by 12
iii –76 by 19

iv –132 by 12
v –150 by 25
vi –72 by –18
vii –105 by –21
viii –36 by –1
ix 0 by –31
x –63 by 63
xi –23 by –23
xii –8 by 1

Solution:

i 65 –13 = –5

ii –84 12 = –7

iii –76 19 = –4

iv –132 12 = –11

v –150 25 = –6

vi –72 –18 =

vii –105 –21 = 5

viii –36 –1 = 36

ix 0 –31 = 0

x –63 63 = –1

xi –23 –23 = 1

xii –8 1 = –8

Question:27

Fill in the blanks

i 72 ÷ ..... = –4
ii –36 ÷ ..... = –4

iii ..... ÷ –4 = 24

iv ..... ÷ 25 = 0

v ..... ÷ –1 = 36

vi ..... ÷ 1 = –37

vii 39 ÷ ..... = –1

viii 1 ÷ ..... = –1

ix –1 ÷ ..... = –1

Solution:

i

72 ÷ (*x*) = –4

ii

–36 ÷ (*x*) = –4

iii

(*x*) ÷ –4 = 24

iv

(*x*) ÷ 25 = 0

v

(*x*) ÷ –1 = 36

vi

(*x*) ÷ 1 = –37

vii

39 ÷ (*x*) = –1

viii

1 ÷ (*x*) = –1

ix

$-1 \div (x) = -1$

Question:28

Write T for true and F for false for each of the following statements.

i $0 \div -4 = 0$

ii $-6 \div 0 = 0$

iii $-5 \div -1 = -5$

iv $-8 \div 1 = -8$

v $-1 \div -1 = -1$

vi $-9 \div -1 = 9$

Solution:

i True T. Dividing zero by any integer gives zero.

ii False F. Division by zero gives an indefinite number.

iii False F.

iv True T.

v False F.

vi True T.

Question:29

Mark ✓ against the correct answer

$6 - -8 = ?$

a –2

b 2

c 14

d none of these

Solution:

c 14

Given:

$6 - -8$

$= 6 + 8$

= 14

Question:30

Mark ✓ against the correct answer

–9 – –6 = ?

a –15

b –3

c 3

d none of these

Solution:

b –3

Given:

–9 – –6

= –9 + 6

= –3

Question:31

Mark ✓ against the correct answer

By how much does 2 exceed –3?

a –1

b 1

c –5

d 5

Solution:

d 5

We can see that

–3 + 5 = 2

Hence, 2 exceeds –3 by 5.

Question:32

Mark ✓ against the correct answer

What must be subtracted from –1 to get –6?

a 5

b –5

c 7

d –7

Solution:

a 5

Let the number to be subtracted be x.

To find the number, we have:

$-1 - x = -6$

$\therefore x = -1 + 6 = 5$

Question:33

Mark ✓ against the correct answer

How much less than –2 is –6?

a 4

b –4

c 8

d –8

Solution:

c 4

We can see that

$-2 - -6 = -2 + 6 = 4$

Hence, –6 is four 4 less than –2.

Question:34

Mark ✓ against the correct answer

On subtracting 4 from –4, we get

a 8

b –8

c 0

d none of these

Solution:

b –8

Subtracting 4 from –4, we get:

$-4 - 4 = -8$

Question:35

Mark ✓ against the correct answer

By how much does –3 exceed –5?

a –2

b 2

c 8

d –8

Solution:

b 2

Required number = –3 – –5 = 5 – 3 = 2

Question:36

Mark ✓ against the correct answer

What must be subtracted from –3 to get –9?

a –6

b 12

c 6

d –12

Solution:

c 6

–3 – x = –9

∴ x = –3 + 9 = 6

Hence, 6 must be subtracted from –3 to get –9.

Question:37

Mark ✓ against the correct answer

On subtracting 6 from –5, we get

a 1

b 11

c –11

d none of these

Solution:

c –11

Subtracting 6 from –5, we get:
–5 – 6 = –11

Question:38

Mark ✓ against the correct answer

On subtracting –13 from –8, we get

a –21
b 21
c 5
d –5

Solution:

c 5
Subtracting –13 from –8, we get:
–8 – –13
= –8 + 13
= 5

Question:39

Mark ✓ against the correct answer

–36 ÷ –9 = ?

a 4
b –4
c none of these

Solution:

a 4
–36 ÷ –9 = 4

Here, the negative signs in both the numerator and denominator got cancelled with each other.

Question:40

Mark ✓ against the correct answer

0 ÷ –5 = ?

a –5
b 0

c not defined

Solution:

b 0

Dividing zero by any integer gives zero as the result.

Question:41

Mark ✓ against the correct answer

–8 ÷ 0 = ?

a –8

b 0

c not defined

Solution:

c not defined

Dividing any integer by zero is not defined.

Question:42

Mark ✓ against the correct answer

Which of the following is a true statement?

a –11 > –8

b –11 < –8

c –11 and –8 cannot be compared

Solution:

b –11 < –8

Negative integers decrease with increasing magnitudes.

Question:43

Mark ✓ against the correct answer

The sum of two integers is 6. If one of them is –3, then the other is

a –9

b 9

c 3

d –3

Solution:

b 9

Let the other integer be *a*. Then, we have:

$-3 + a = 6$

$\therefore a = 6 - -3 = 9$

Question:44

Mark ✓ against the correct answer

The sum of two integers is –4. If one of them is 6, then the other is

a –10

b 10

c 2

d –2

Solution:

a –10

Let the other integer be *a.* Then, we have:

$6 + a = -4$

$\therefore a = -4 - 6 = -10$

Hence, the other integer is –10.

Question:45

Mark ✓ against the correct answer

The sum of two integers is 14. If one of them is –8, then the other is

a 22

b –22

c 6

d –6

Solution:

a 22

Let the other integer be *a*. Then, we have:

$-8 + a = 14$

$\therefore a = 14 + 8 = 22$

Hence, the other integer is 22.

Question:46

Mark ✓ against the correct answer

The additive inverse of –6 is

a

b

c 6

d 5

Solution:

c 6

The additive inverse of any integer a is $-a$.

Thus, the additive inverse of –6 is 6.

Question:47

Mark ✓ against the correct answer

$-15 \times 8 + -15 \times 2 = ?$

a 150

b –150

c 90

d –90

Solution:

b –150

We have $-15 \times 8 + -15 \times 2$

$= -15 \times 8 + 2$ Associative property

$= -150$

Question:48

Mark ✓ against the correct answer

$-12 \times 6 - -12 \times 4 = ?$

a 24

b –24

c 120

d –120

Solution:

b –24

We have $-12 \times 6 - -12 \times 4$

$= -12 \times 6 - 4$ Associative property

$= -24$

Question:49

Mark ✓ against the correct answer

$-27 \times -16 + -27 \times -14 = ?$

a –810

b 810

c –54

d 54

Solution:

b 810

$-27 \times -16 + -27 \times -14$

$= -27 \times -16 + (-14)$ Associative property

$= -27 \times -30$

$= 810$

Question:50

Mark ✓ against the correct answer

$30 \times -23 + 30 \times 14 = ?$

a –270

b 270

c 1110

d –1110

Solution:

a –270

$30 \times -23 + 30 \times 14$

$= 30 \times -23 + 14$ Associative property

$= 30 \times -9$

$= -270$

Question:51

Mark ✓ against the correct answer

The sum of two integers is 93. If one of them is –59, the other one is

a 34
b –34
c 152
d –152

Solution:

c 152

Let the other integer be *a.* Then, we have:

$-59 + a = 93$

$\therefore a = 93 + 59 = 152$

Question:52

Mark ✓ against the correct answer

$? \div -18 = -5$

a –90
b 90
c none of these

Solution:

b 90

Question:53

The sum of two integers is –12. If one of them is 43, find the other.

Solution:

Let the other integer be *a*. Then, we have:

$a + -12 = 43$

$\Rightarrow a = 43 - -12 = 55$

Hence, the other integer is 55.

Question:54

The difference of an integer *p* and –8 is 3. Find the value of *p*.

Solution:

Given:

$p - -8 = 3$

$\Rightarrow p = 3 + -8$

$\Rightarrow p = -5$

Hence, the value of p is –5.

Question:55

Add the product of –16 and –9 to the quotient if –132 by 6.

Solution:

Product of –16 and –9 = = 144

Now, gives the quotient –22.

$\therefore 144 + -22 = 122$

Question:56

By what number should –240 be divided to obtain 16?

Solution:

Suppose that a divides –240 to obtain 16. Then, we have:

$-240\ a = 16$

$\Rightarrow a = -240\ 16 = -15$

Hence, –15 should divide –240 to obtain 16.

Question:57

What should be divided by –7 to obtain 12?

Solution:

Let a be divided by –7 to obtain 12. Then, we have:

$\Rightarrow a =$

Hence, should be divided by –7 to obtain 12.

Question:58

Evaluate:

i $-6 \times -15 \times -5$

ii $-8 \times -5 \times 9$

iii $9 \times -12 \times 10$

iv -75×8

v $-5 \times -5 \times -5$ ..... taken 5 times

vi $-1 \times -1 \times -1 \times$..... taken 25 times

Solution:

i -450

ii 360

iii -1080

iv -600

v

vi

Question:59

Evaluate

i $-16 \times 12 + -16 \times 8$

ii $25 \times -33 + 25 \times -17$

iii $-19 \times -25 + -19 \times -15$

iv $-47 \times 68 - -47 \times 38$

v $-105 \div 21$

vi $-168 \div -14$

vii $0 \div -34$

viii $37 \div 0$

Solution:

i $-16 \times 12 + -16 \times 8$

$= -16 \times 12 + 8$ Associative property

$= -16 \times 20$

$= -320$

ii $25 \times -33 + 25 \times -17$

$= 25 \times (-33 + -17)$ Associative property

$= 25 \times -50 = -1250$

iii $-19 \times -25 + -19 \times -15$

$= -19 \times (-25 + -15)$ Associative property

$= -19 \times -40 = 760$

iv $-47 \times 68 - -47 \times 38$

$= -47 \times 68 - 38$ Associative property

$= -47 \times 30 = -1410$

v $-105 \div 21 = -5$

vi 12

vii 0 zero. Dividing 0 by any integer gives 0.

vii Not defined. Dividing any integer by zero is not defined.

Question:60

Mark ✓ against the correct answer

The sum of two integers is –6. If one of them is 2, then the other is

a –4

b 4

c 8

d –8

Solution:

d –8

Let the other integer be a. Then, we have:

$2 + a = -6$

$\Rightarrow a = -6 - 2 = -8$

$\therefore$ The other integer is –8.

Question:61

Mark ✓ against the correct answer

What must be subtracted from –7 to obtain –15?

a –8

b 8

c –22

d 22

Solution:

b 8

Suppose that a is subtracted from –7. Then, we have:

$-7 - a = -15$

$a = -7 + 15 = 8$

$\therefore$ 8 must be subtracted from –7 to obtain –15.

Question:62

Mark ✓ against the correct answer

$? \div -18 = -6$

a –108

b 108

c 3

d none of these

Solution:

b108

$108 \div -18 = -6$

Question:63

Mark ✓ against the correct answer

$-37 \times -7 + -37 \times -3 = ?$

a 370

b –370

c 148

d –148

Solution:

a 370

We have:

$-37 \times -7 + -37 \times -3$

$= -37 \times \{-7 + -3\}$ Associative property

$= -37 \times -10$

$= 370$

Question:64

Mark ✓ against the correct answer

$-25 \times 8 + -25 \times 2 = ?$

a 250
b 150
c –250
d –150

Solution:

c –250

$-25 \times 8 + -25 \times 2$
$= -25 \times 8 + 2$ Associative property
$= -250$

Question:65

Mark ✓ against the correct answer

$-9 - -6 = ?$

a –15
b –3
c 3
d 15

Solution:

b –3

$-9 - -6$
$= -9 + 6$
$= -3$

Question:66

Mark ✓ against the correct answer

How much less than –2 is –8?

a 6
b –6
c 10

d –10

Solution:

b –6

–8 – –6 = 2

Hence, –8 is –6 less than –2.

Question:67

Fill in the blanks.

i –35 × ... = 35

ii –53 × ... = –53

iii –14 × ... = –16 × –14

iv –21 × ... = 0

v –119 ÷ 17 = ...

vi –247 ÷ ... = 13

vii ... ÷ 31 = 0

viii ... ÷ –19 = –8

Solution:

i –1

ii 1

iii –16 Commutative property

iv 0 Property of zero

v –7

vi –19

vii 0

viii 152

Question:68

Write 'T' for true and 'F' for false for each of the following:

i 0 ÷ –16 = 0

ii –8 ÷ 0 = 0

iii –1 ÷ –1 = –1

iv –36 ÷ –1 = 36

v –52 ÷ 13 = –4

vi 68 ÷ –17 = 4

Solution:

i True T.

ii False F. Dividing any integer by zero is not defined.

iii False F. $-1 \div -1 = 1$

iv True T.

v True T.

vi False T. $68 \div -17 = -4$