

St. Mary's Co-Ed School, Harda(M.P.)

Subject Maths Class 7th
Chapter-(1): chapter-Integers

Exercise 1A

Question 1:

Evaluate:

(i) $15 + (-8)$

(ii) $(-16) + 9$

(iii) $(-7) + (-23)$

(iv) $(-32) + 47$

(v) $53 + (-26)$

(vi) $(-48) + (-36)$

ANSWER: 02

(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

ANSWER:

(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

ANSWER:

(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

ANSWER:

(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.

ANSWER:

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.

ANSWER:

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) $\{(-13) + 27\} + (-41) = (-13) + \{27 + (\dots)\}$

(ii) $(-26) + \{(-49) + (-83)\} = \{(-26) + (-49)\} + (\dots)$

(iii) $53 + (-37) = (-37) + (\dots)$

(iv) $(-68) + (-76) = (\dots) + (-68)$

(v) $(-72) + (\dots) = -72$

(vi) $-(-83) = \dots$

(vii) $(-60) - (\dots) = -59$

(viii) $(-31) + (\dots) = -40$

ANSWER:

(i) -41 ($\because$ Associative property)

(ii) -83 ($\because$ Associative property)

(iii) 53 ($\because$ Commutative property)

(iv) -76 ($\because$ Commutative property)

(v) 0 ($\because$ Additive identity)

(vi) 83 ($\because$ Additive inverse)

(vii) $(-60) - (-59) = -1$

(viii) $(-40) - (-31) = -9$

Question 8:

Simplify:

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

ANSWER:

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

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

$$= 14 + 15$$

$$= 29$$

Question 9:

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

ANSWER:

$$36 - (-64) = 36 + 64 = 100$$

$$\text{Now, } (-64) - 36 = (-64) + (-36) = -100$$

Here, $100 \neq -100$

Thus, they are not equal.

Question 10:

If $a = -8$, $b = -7$, $c = 6$, verify that $(a+b) + c = a + (b+c)$.

ANSWER:

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

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

Hence, $(a + b) + c = a + (b + c)$ [i.e., Property of Associativity]

Question 11:

If $a = -9$ and $b = -6$, show that $(a-b) \neq (b-a)$.

ANSWER:

Here, $(a - b) = -9 - (-6) = -3$

Similarly, $(b - a) = -6 - (-9) = 3$

$\therefore (a-b) \neq (b-a)$

Question 12:

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

ANSWER:

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

$$53 + a = -16$$

$$\Rightarrow a = -16 - 53 = -69$$

$\therefore$ The other integer is -69 .

Question 13:

The sum of two integers is 65 . If one of them is -31 , find the other.

ANSWER:

Let the other integer be a .

Then, $-31 + a = 65$

$$\Rightarrow a = 65 - (-31) = 96$$

$\therefore$ The other integer is 96 .

Question 14:

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

ANSWER:

We have:

$$a - (-6) = 4$$

$$\Rightarrow a = 4 + (-6) = -2$$

$\therefore a = -2$

Question 15:

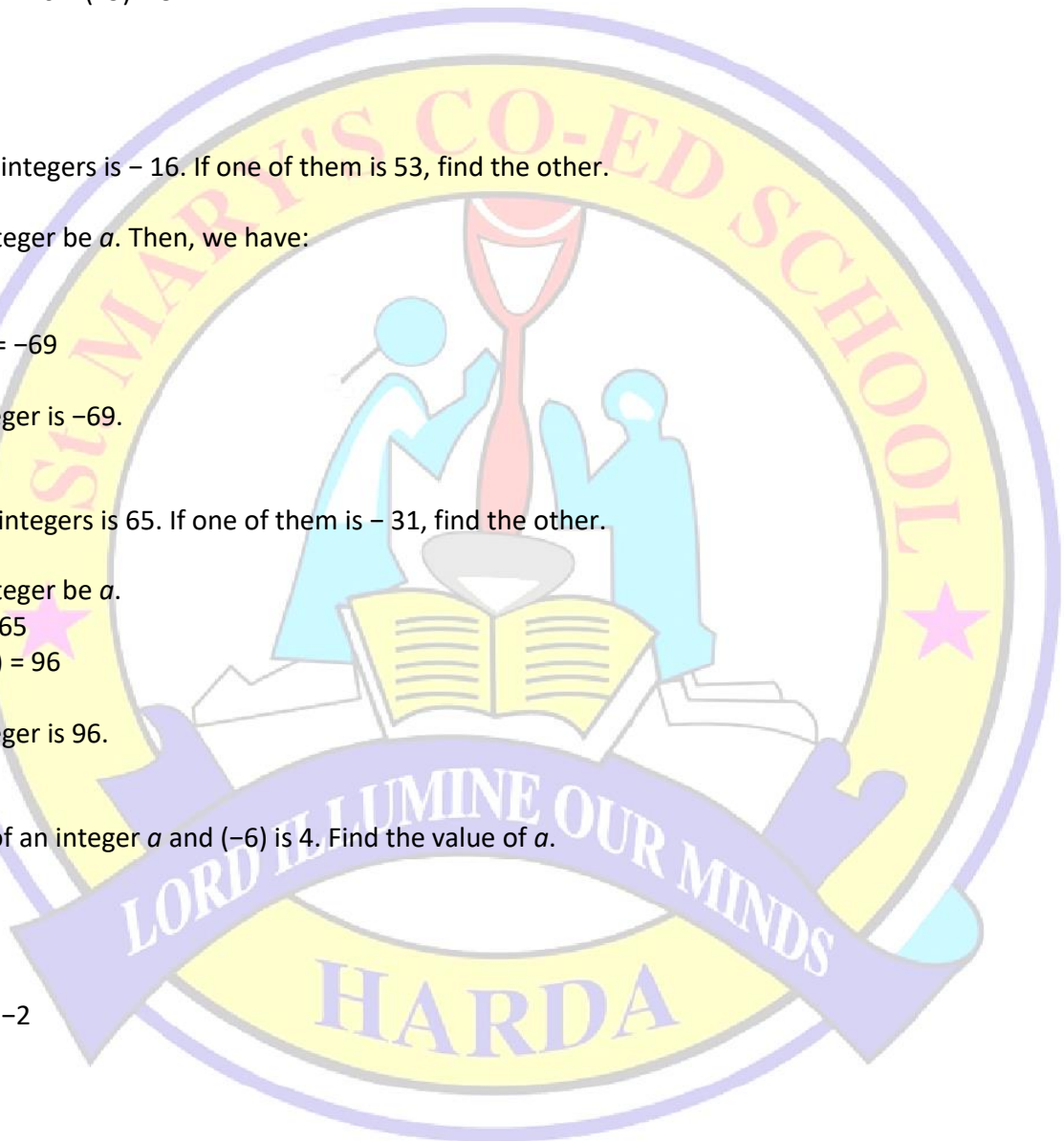
Write a pair of integers whose sum gives

- (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.

ANSWER:

(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.

ANSWER:

(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: $-9 + 2 = -7$

Integers Exercise 1 B

Question 1:

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

ANSWER:

(i) $16 \times 9 = 144$

(ii) $18 \times (-6) = -(18 \times 6) = -(18 \times 6) = -108$

(iii) $36 \times (-11) = -(36 \times 11) = -(36 \times 11) = -396$

(iv) $(-28) \times 14 = -(28 \times 14) = -(28 \times 14) = -392$

(v) $(-53) \times 18 = -(53 \times 18) = -(53 \times 18) = -954$

(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) $25 \times (-11) = -(25 \times 11) = -(25 \times 11) = -275$

Question 2:

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) $(-7) \times (-3) \times 4$

ANSWER:

- (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 3:

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) $(-3) \times (-3) \times (-3) \times \dots 6 \text{ times}$
 (vi) $(-5) \times (-5) \times (-5) \times \dots 5 \text{ times}$
 (vii) $(-1) \times (-1) \times (-1) \times \dots 200 \text{ times}$
 (viii) $(-1) \times (-1) \times (-1) \times \dots 171 \text{ times}$

ANSWER:

- (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.
 $(-3)^6(-3)^6 = 729$
 (vi) Since the number of negative integers in the product is odd, the product will be negative.
 $(-5)^5(-5)^5 = -3125$
 (vii) Since the number of negative integers in the product is even, the product will be positive.
 $(-1)^{200}(-1)^{200} = 1$
 (viii) Since the number of negative integers in the product is odd, the product will be negative.
 $(-1)^{171}(-1)^{171} = -1$

Question 4:

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

ANSWER:

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 5:

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

ANSWER:

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 6:

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) $(-26) \times 72 + (-26) \times 28$

ANSWER:

(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]

$= 20 \times (-2) = -40$

(iv) $(-16) \times (-15 + (-5))$ [using the distributive law]

$= (-16) \times (-20) = 320$

(v) $(-11) \times (-15 + (-25))$ [using the distributive law]

$= (-11) \times (-40)$

$= 440$

(vi) $(-12) \times (10 + 5)$ [using the distributive law]

$= (-12) \times 15 = -180$

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

$= (-20) \times (-8) = 160$

(viii) $(-26) \times (72 + 28)$ [using the distributive law]

$= (-26) \times 100 = -2600$

Question 7:

Fill in the blanks:

- (i) $(-6) \times (\dots) = 6$
- (ii) $(-18) \times (\dots) = (-18)$
- (iii) $(-8) \times (-9) = (-9) \times (\dots)$
- (iv) $7 \times (-3) = (-3) \times (\dots)$
- (v) $\{(-5) \times 3\} \times (-6) = (\dots) \times \{3 \times (-6)\}$
- (vi) $(-5) \times (\dots) = 0$

ANSWER:

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

$x = 6 \div -6 = -66 = -1$ $x = 6 \div -6 = -66 = -1$

Thus, $x = (-1)$

- (ii) 1 [$\because$ Multiplicative identity]
- (iii) (-8) [$\because$ Commutative law]
- (iv) 7 [$\because$ Commutative law]
- (v) (-5) [$\because$ Associative law]
- (vi) 0 [$\because$ Property of zero]

Question 8:

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?

ANSWER:

We have 5 marks for correct answer and (-2) marks for an incorrect answer.

Now, we have the following:

(i) Ravi's score = $4 \times 5 + 6 \times (-2)$
 $= 20 + (-12) = 8$

(ii) Reenu's score = $5 \times 5 + 5 \times (-2)$
 $= 25 - 10 = 15$

(iii) Heena's score = $2 \times 5 + 5 \times (-2)$
 $= 10 - 10 = 0$

Question 9:

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.

ANSWER:

- (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. $a \times (-1) = -a$, which is not the multiplicative inverse of a .
- (v) True. $a \times b = b \times a$

(vi) True. $(a \times b) \times c = a \times (b \times c)$

(vii) False. Every non-zero integer a has a multiplicative inverse $\frac{1}{a}$, which is not an integer.

Integers Exercise 1 C

Question 1:

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

ANSWER:

(i) $65 \div (-13) = \frac{65}{-13} = -5$

(ii) $(-84) \div 12 = \frac{-84}{12} = -7$

(iii) $(-76) \div 19 = \frac{-76}{19} = -4$

(iv) $(-132) \div 12 = \frac{-132}{12} = -11$

(v) $(-150) \div 25 = \frac{-150}{25} = -6$

(vi) $(-72) \div (-18) = \frac{-72}{-18} = 4$

(vii) $(-105) \div (-21) = \frac{-105}{-21} = 5$

(viii) $(-36) \div (-1) = \frac{-36}{-1} = 36$

(ix) $0 \div (-31) = \frac{0}{-31} = 0$

(x) $(-63) \div 63 = \frac{-63}{63} = -1$

(xi) $(-23) \div (-23) = \frac{-23}{-23} = 1$

(xii) $(-8) \div 1 = \frac{-8}{1} = -8$

Question 2:

Fill in the blanks

(i) $72 \div (\dots) = -4$

(ii) $-36 \div (\dots) = -4$

(iii) $(\dots) \div (-4) = 24$

(iv) $(\dots) \div 25 = 0$

(v) $(\dots) \div (-1) = 36$

(vi) $(\dots) \div 1 = -37$

(vii) $39 \div (\dots) = -1$

(viii) $1 \div (\dots) = -1$

(ix) $-1 \div (\dots) = -1$

ANSWER:

(i)

$72 \div (x) = -4$

$\Rightarrow 72x = -4 \Rightarrow x = 72 \div -4 = -18 \Rightarrow 72x = -4 \Rightarrow x = 72 \div -4 = -18$

(ii)

$-36 \div (x) = -4$

$\Rightarrow -36x = -4 \Rightarrow x = -36 \div -4 = 9 \Rightarrow -36x = -4 \Rightarrow x = -36 \div -4 = 9$

(iii)

$(x) \div (-4) = 24$

$\Rightarrow x \div -4 = 24 \Rightarrow x = 24 \times (-4) = -96 \Rightarrow x \div -4 = 24 \Rightarrow x = 24 \times (-4) = -96$

(iv)

$(x) \div 25 = 0$

$\Rightarrow x \div 25 = 0 \Rightarrow x = 25 \times 0 = 0 \Rightarrow x \div 25 = 0 \Rightarrow x = 25 \times 0 = 0$

(v)

$(x) \div (-1) = 36$

$\Rightarrow x \div -1 = 36 \Rightarrow x = 36 \times (-1) = -36 \Rightarrow x \div -1 = 36 \Rightarrow x = 36 \times (-1) = -36$

(vi)

$(x) \div 1 = -37$

$\Rightarrow x \div 1 = -37 \Rightarrow x = -37 \times 1 = -37 \Rightarrow x \div 1 = -37 \Rightarrow x = -37 \times 1 = -37$

(vii)

$39 \div (x) = -1$

$\Rightarrow 39x = -1 \Rightarrow x = -1 \div 39 = -39 \Rightarrow 39x = -1 \Rightarrow x = -1 \div 39 = -39$

(viii)

$1 \div (x) = -1$

$\Rightarrow 1x = -1 \Rightarrow x = -1 \div 1 = -1 \Rightarrow 1x = -1 \Rightarrow x = -1 \div 1 = -1$

(ix)

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

$\Rightarrow -1x = -1 \Rightarrow x = -1 \div -1 = 1 \Rightarrow -1x = -1 \Rightarrow x = -1 \div -1 = 1$

Question 3:

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) $(-9) \div (-1) = 9$

ANSWER:

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

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

(iii) False (F). $-5-1 = 5-5-1 = 5$

(iv) True (T). $-81 = -8-81 = -8$

(v) False (F). $-1-1 = 1-1-1 = 1$

(vi) True (T). $-9-1 = 9-9-1 = 9$

Integers Exercise 1 D

Question 1:

Mark (✓) against the correct answer

$6 - (-8) = ?$

- (a) -2
- (b) 2
- (c) 14
- (d) none of these

ANSWER:

(c) 14

Given:

$$\begin{aligned} 6 - (-8) \\ = 6 + 8 \\ = 14 \end{aligned}$$

Question 2:

Mark (✓) against the correct answer

$-9 - (-6) = ?$

- (a) -15
- (b) -3
- (c) 3
- (d) none of these

ANSWER:

(b) -3

Given:

$$\begin{aligned} -9 - (-6) \\ = -9 + 6 \\ = -3 \end{aligned}$$

Question 3:

Mark (✓) against the correct answer

By how much does 2 exceed -3?

- (a) -1
- (b) 1
- (c) -5
- (d) 5

ANSWER:

(d) 5

We can see that

$$-3 + 5 = 2$$



Hence, 2 exceeds -3 by 5.

Question 4:

Mark (✓) against the correct answer

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

- (a) 5
- (b) -5
- (c) 7
- (d) -7

ANSWER:

- (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 5:

Mark (✓) against the correct answer

How much less than -2 is -6 ?

- (a) 4
- (b) -4
- (c) 8
- (d) -8

ANSWER:

- (c) 4

We can see that

$$(-2) - (-6) = (-2) + 6 = 4$$

Hence, -6 is four (4) less than -2 .

Question 6:

Mark (✓) against the correct answer

On subtracting 4 from -4 , we get

- (a) 8
- (b) -8
- (c) 0
- (d) none of these

ANSWER:

- (b) -8

Subtracting 4 from -4 , we get:

$$(-4) - 4 = -8$$

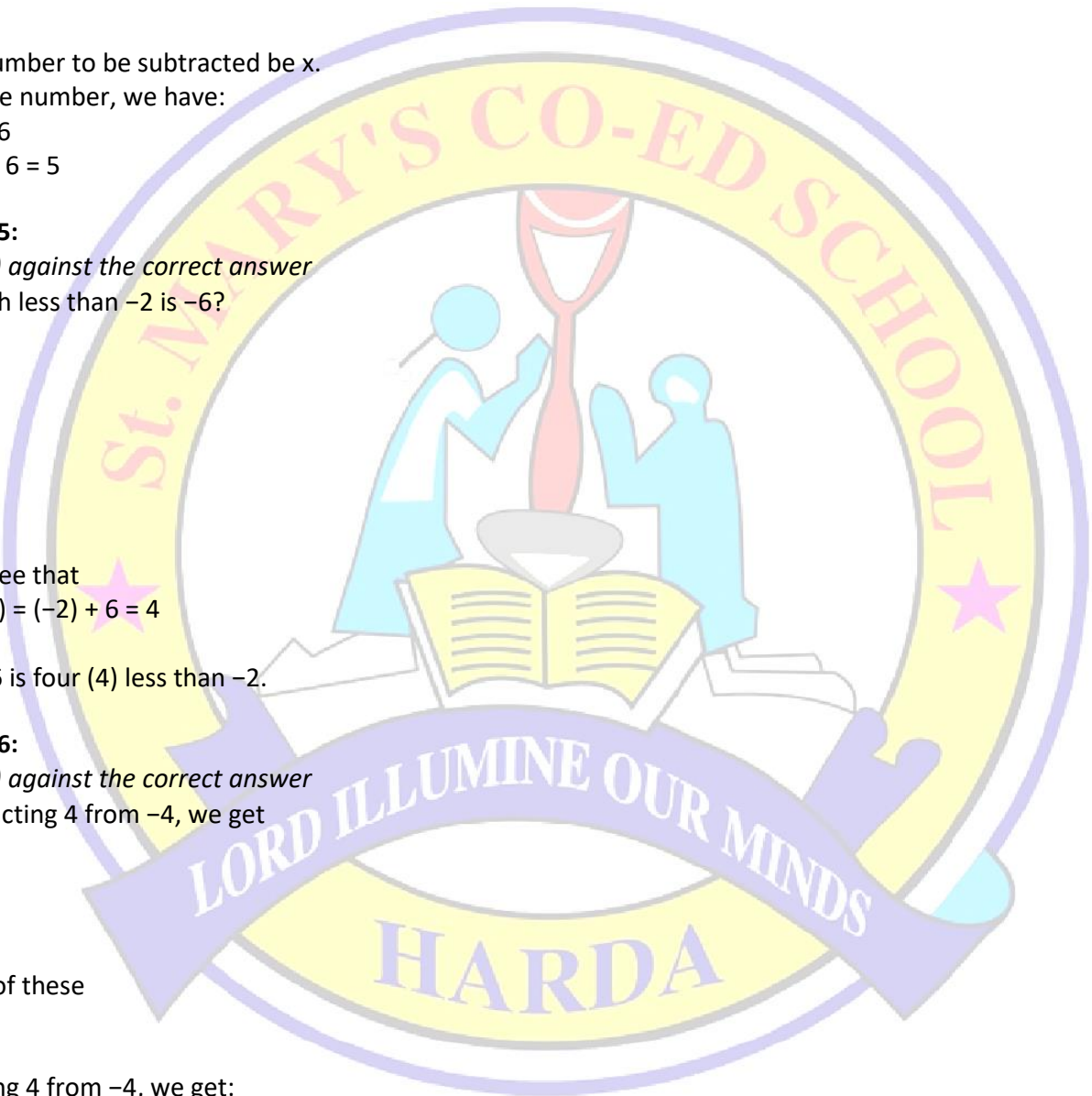
Question 7:

Mark (✓) against the correct answer

By how much does -3 exceed -5 ?

- (a) -2
- (b) 2
- (c) 8
- (d) -8

ANSWER:



(b) 2

$$\text{Required number} = (-3) - (-5) = 5 - 3 = 2$$

Question 8:

Mark (✓) against the correct answer

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

(a) -6

(b) 12

(c) 6

(d) -12

ANSWER:

(c) 6

$$(-3) - x = -9$$

$$\therefore x = (-3) + 9 = 6$$

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

Question 9:

Mark (✓) against the correct answer

On subtracting 6 from -5, we get

(a) 1

(b) 11

(c) -11

(d) none of these

ANSWER:

(c) -11

Subtracting 6 from -5, we get:

$$(-5) - 6 = -11$$

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Question 10:

Mark (✓) against the correct answer

On subtracting -13 from -8, we get

(a) -21

(b) 21

(c) 5

(d) -5

ANSWER:

(c) 5

Subtracting -13 from -8, we get:

$$(-8) - (-13)$$

$$= -8 + 13$$

$$= 5$$

Question 11:

Mark (✓) against the correct answer

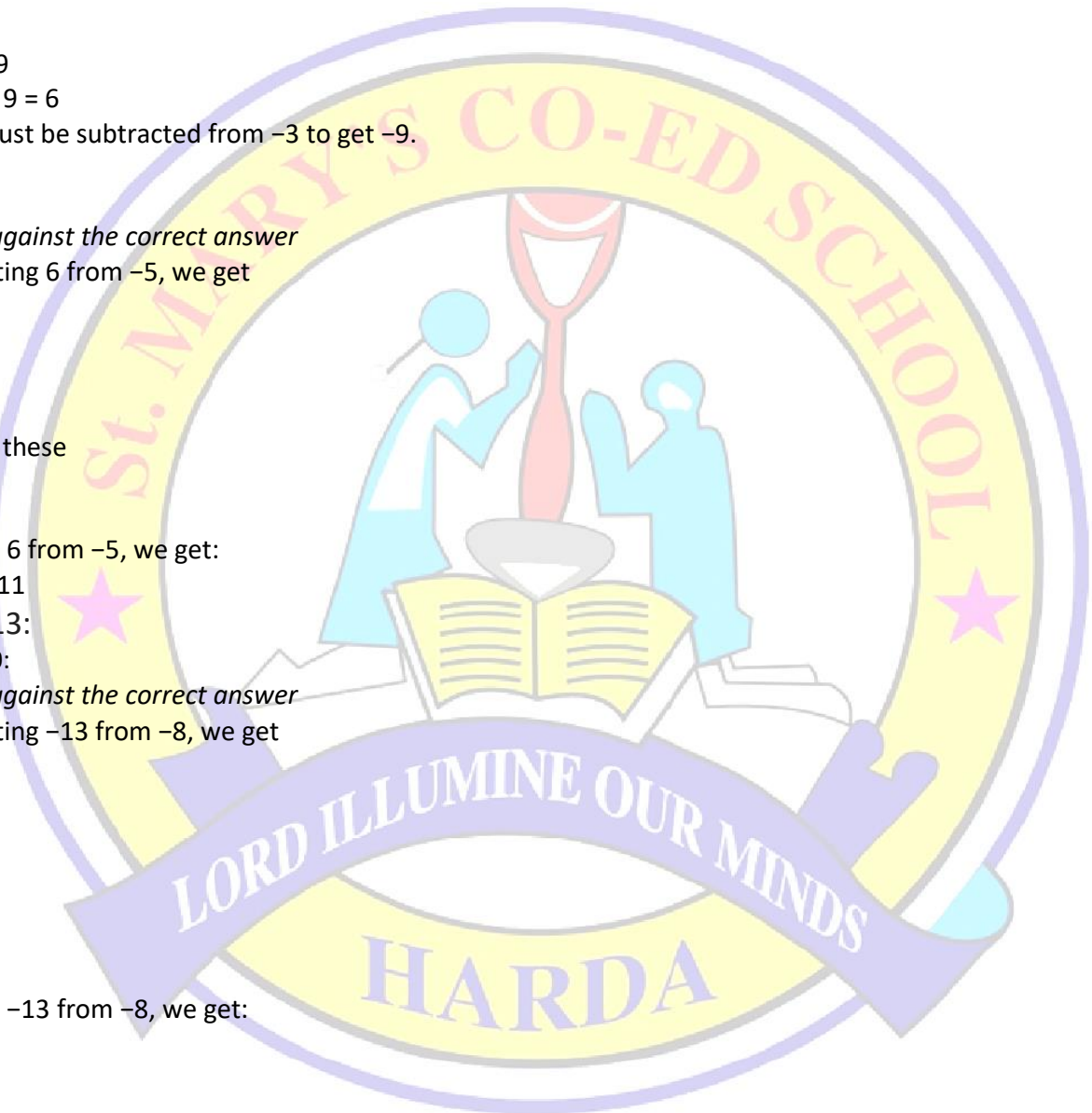
$$(-36) \div (-9) = ?$$

(a) 4

(b) -4

(c) none of these

ANSWER:



- (a) 4
 $(-36) \div (-9) = 4$

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

Question 12:

Mark (✓) against the correct answer

$0 \div (-5) = ?$

- (a) -5
(b) 0
(c) not defined

ANSWER:

- (b) 0

Dividing zero by any integer gives zero as the result.

Question 13:

Mark (✓) against the correct answer

$(-8) \div 0 = ?$

- (a) -8
(b) 0
(c) not defined

ANSWER:

- (c) not defined

Dividing any integer by zero is not defined.

Question 14:

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

ANSWER:

- (b) $-11 < -8$

Negative integers decrease with increasing magnitudes.

Question 15:

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

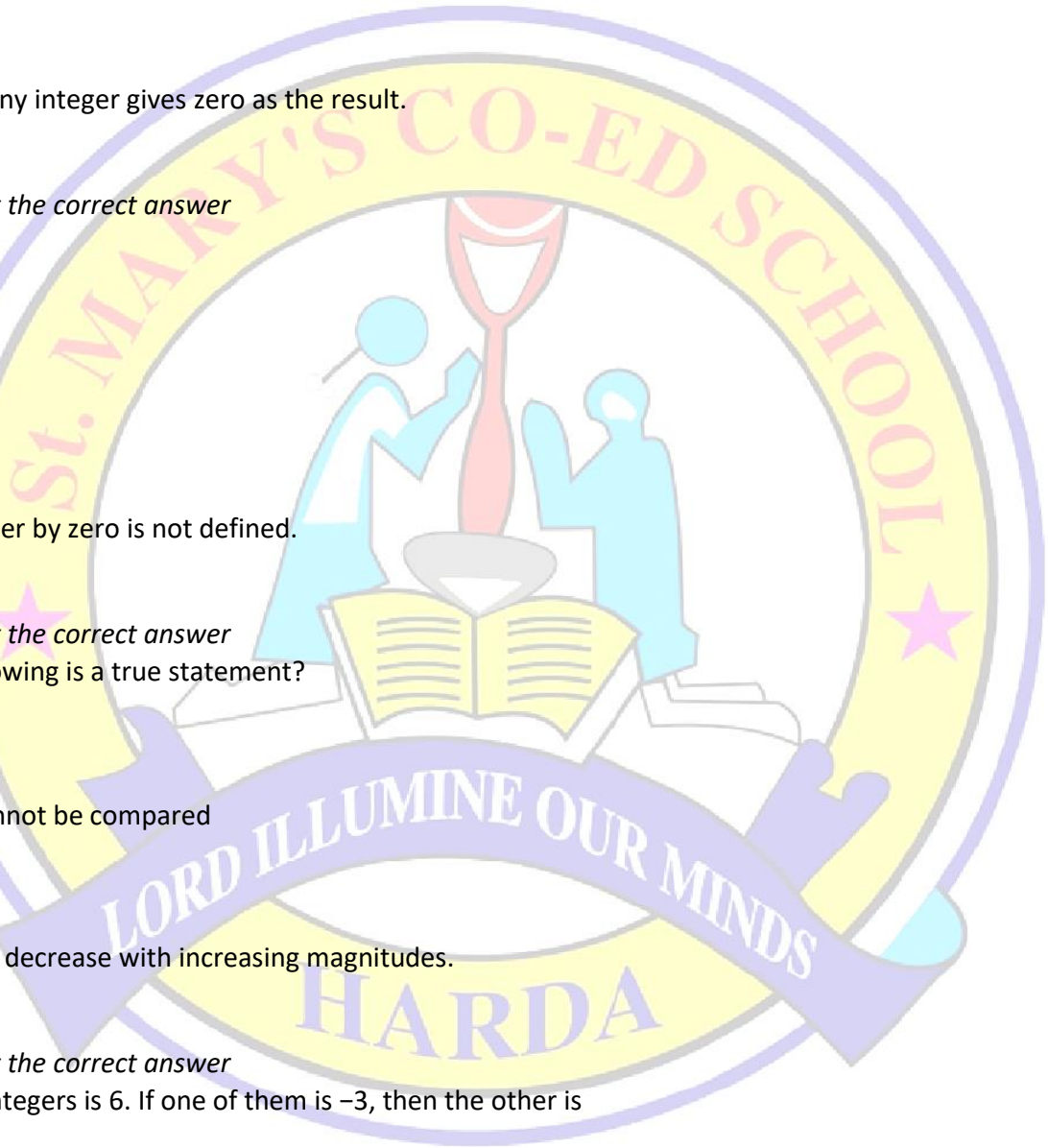
ANSWER:

- (b) 9

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

$$-3 + a = 6$$

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



Question 16:

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

ANSWER:

- (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 17:

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

ANSWER:

- (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 18:

Mark (✓) against the correct answer

The additive inverse of -6 is

- (a) 1616
- (b) $-16-16$
- (c) 6
- (d) 5

ANSWER:

- (c) 6

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

Thus, the additive inverse of -6 is 6 .

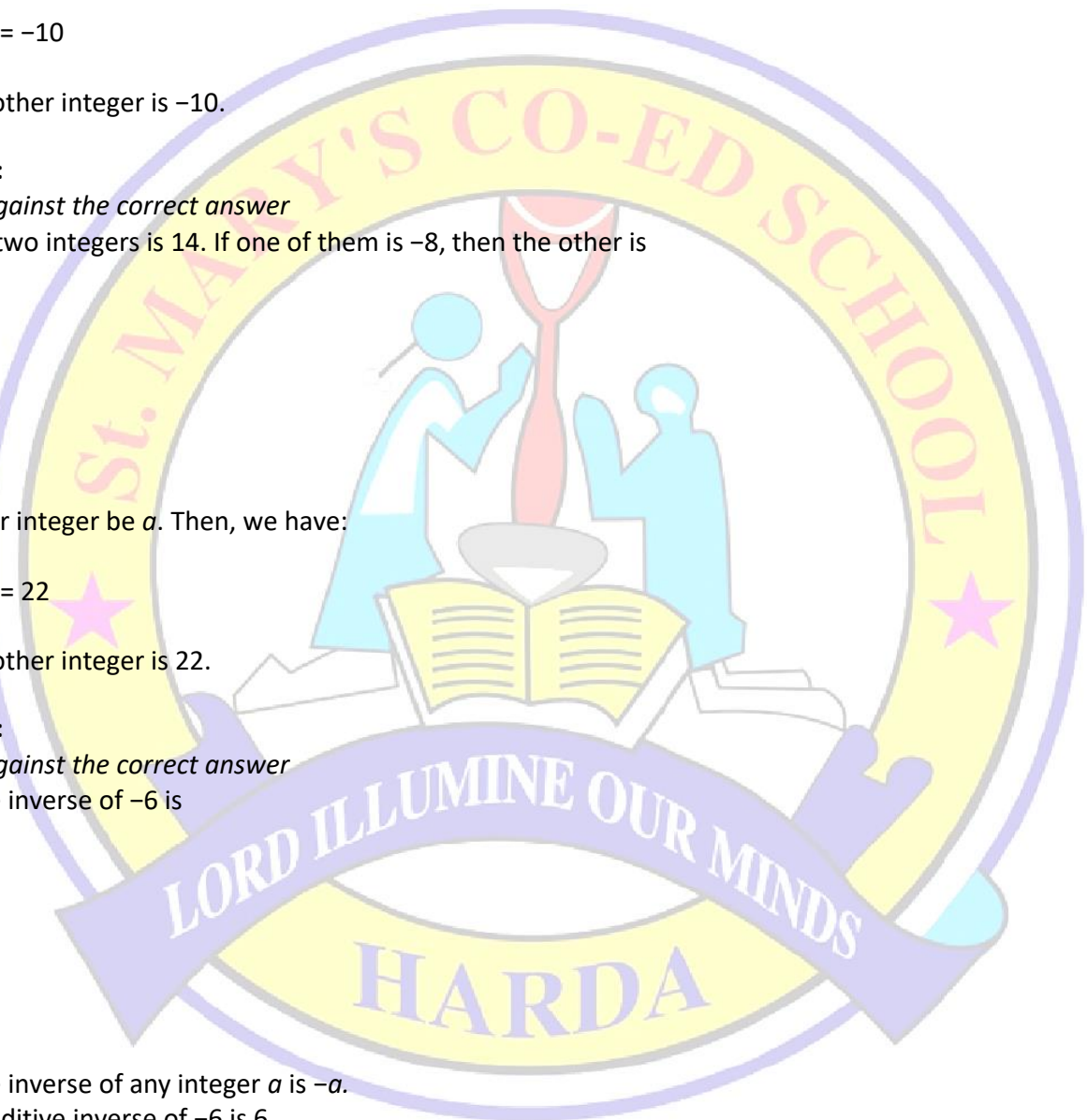
Question 19:

Mark (✓) against the correct answer

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

- (a) 150
- (b) -150
- (c) 90
- (d) -90

ANSWER:



(b) -150

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

$= (-15) \times (8 + 2)$ [Associative property]

$= -150$

Question 20:

Mark (✓) against the correct answer

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

(a) 24

(b) -24

(c) 120

(d) -120

ANSWER:

(b) -24

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

$= (-12) \times (6 - 4)$ [Associative property]

$= -24$

Question 21:

Mark (✓) against the correct answer

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

(a) -810

(b) 810

(c) -54

(d) 54

ANSWER:

(b) 810

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

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

$= (-27) \times (-30)$

$= 810$

Question 22:

Mark (✓) against the correct answer

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

(a) -270

(b) 270

(c) 1110

(d) -1110

ANSWER:

(a) -270

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

$= 30 \times (-23 + 14)$ [Associative property]

$= 30 \times (-9)$

$= -270$

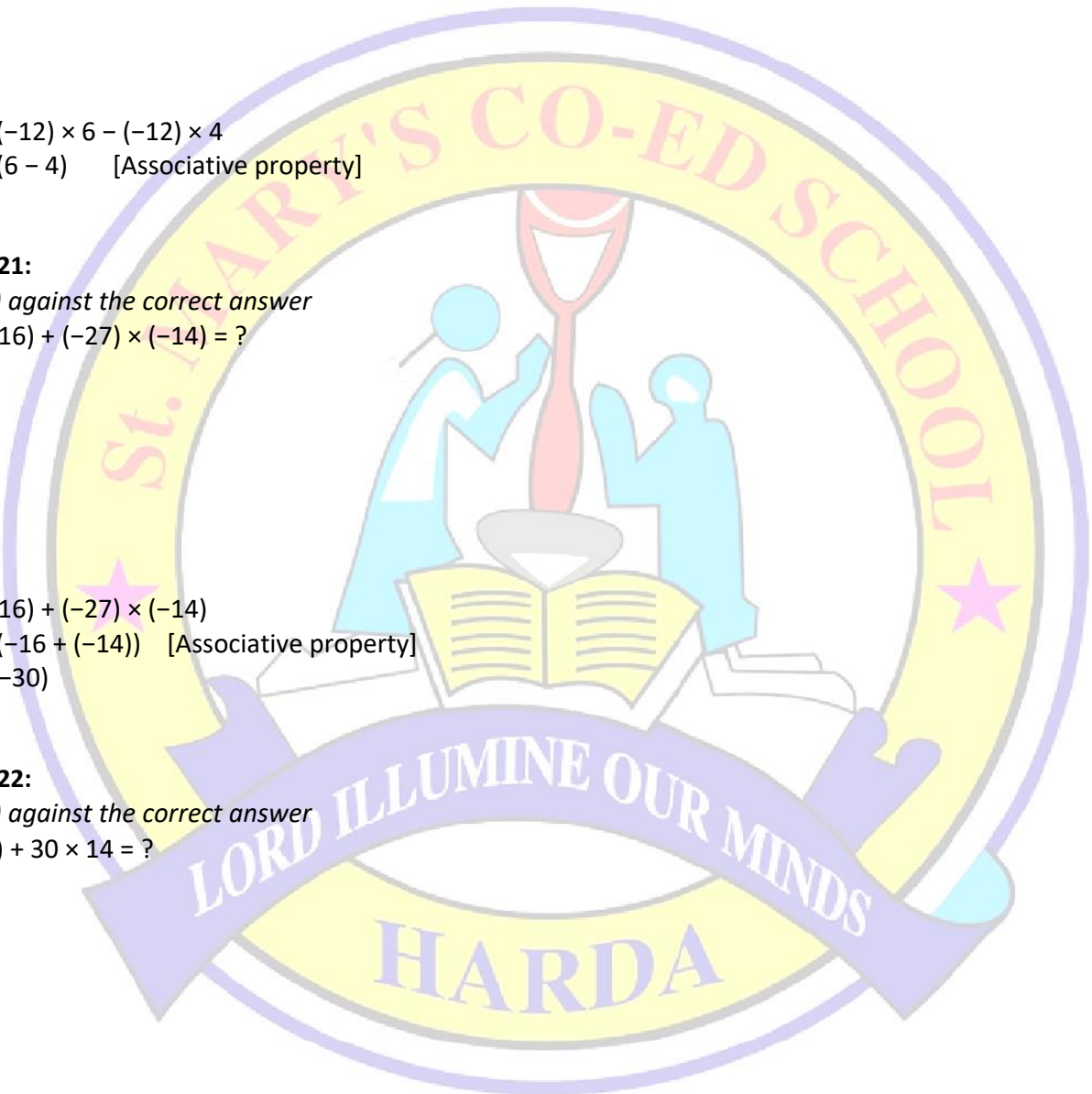
Question 23:

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

ANSWER:

- (c) 152

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

$$-59 + a = 93$$

$$\therefore a = 93 + 59 = 152$$

Question 24:

Mark (✓) against the correct answer

$$(?) \div (-18) = -5$$

- (a) -90
(b) 90
(c) none of these

ANSWER:

- (b) 90

$$x \div (-18) = -5 \Rightarrow x \div (-18) = -5 \therefore x = -18 \times -5 = 90$$

