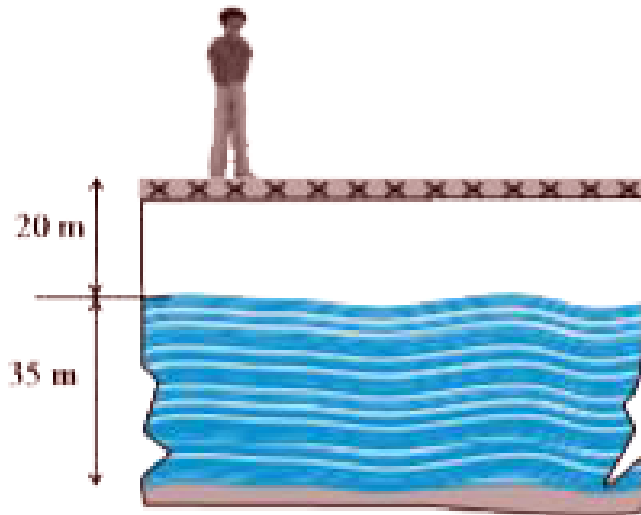# MATHS

BOOKS - NCERT EXEMPLAR

INTEGERS

Solved Examples

1. Madhre is standing in the middle of a bridge which is 20 m above the water level of a river. If a 35 m deep river is flowing under the bridge (see Fig. 1.1), then the vertical distance between the foot of Madhre and bottom level

of the river is:

20 m

35 m

A. 55 m

B. 35m

C. 20 m

D. 15 m

Answer: A

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2. $[(-10) \times (-9)] + (-10)$ is equal to

A. 100

B. -100

C. -80

D. 80

Answer: B

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3. $-16 \div (-4)$ is equal to

A. -1

B. 1

C. 4

D. -4

Answer: C

▶ **Watch Video Solution**

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4. $-(25) \times 30 = -30 \times$ _____

▶ **Watch Video Solution**

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5. $75 \div$ _____ $=-75$

6. $(-5) \times (-7)$ is same as $(7) \times (-5)$

7. $(-80) \div (4)$ is not same as $80 \div (-4)$

8. Find the odd one out of the four options in the following:

A. (-2,24)

B. (-3,10)

C. (-4,12)

D. (-6,8)

Answer: B

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9. Find the odd one out of the four options given below:

A. (−3, −6)

B. (+1, −10)

C. (−2, −7)

D. (−4, −9)

Answer: D

10. Match the integer in Column I to an integer in Column II so that the sum is between –11 and –4

A.
Column I	Column II
-6	-11

B.
Column I	Column II
$+1$	-5

C.
Column I	Column II
$+7$	$+1$

D.
Column I	Column II
-2	-13

Answer:

11. If a is an integer other than 1 and –1, match the following:

12. Write a pair of integers whose sum is zero (0) but difference is 10.

13. Write two integers which are smaller than –3, but their difference is greater than –3.

14. Write a pair of integers whose product is – 15 and whose difference is 8

15. If Δ is an operation such that for integers a and b we have $a\Delta b = a \times a + b \times b - a \times b$, then find $(-3)\Delta$ 2.

16. In an objective type test containing 25 questions. A student is to be awarded +5 marks for every correct answer, –5 for every incorrect answer and zero for not writing any answer. Mention the ways of scoring 110 marks by a student

17. A boy standing on the third stair on a staircase goes up by five more stairs. Which stair is he standing at now? At which step will he be after he comes down by 2 stairs?

1. When the integers 10, 0, 5, – 5, – 7 are arranged in descending or ascending order, them find out which of the following integers always remains in the middle of the arrangement
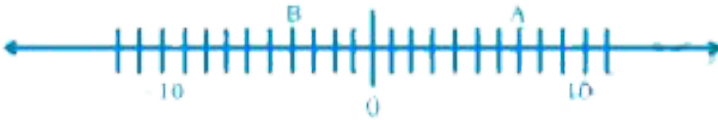
   A. 0

   B. 5

   C. -7

   D. -5

Answer:

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2. By observing the number line (Fig. 1.2), state which of the following statements is not true.

A. B is greater than –10

B. A is greater than 0

C. B is greater than A

D. B is smaller than 0

Answer:

▶ **Watch Video Solution**

3. By observing the above number line (Fig. 1.2), state which of the following statements is true.

    A. B is 2

    B. A is -4

    C. B is -13

    D. B is -4

Answer:

▶ **Watch Video Solution**

4. Next three consecutive numbers in the pattern 11, 8, 5, 2, --, --, -- are

A. 0, – 3, – 6

B. – 1, – 5, – 8

C. – 2, – 5, – 8

D. – 1, – 4, – 7

Answer:

▶ **Watch Video Solution**

5. The next number in the pattern – 62, – 37, – 12 _____

is

A. 25

B. 13

C. 0

D. -13

Answer:

▶ **Watch Video Solution**

6. Which of the following statements is not true?

A. When two positive integers are added, we always

get a positive integer.

B. When two negative integers are added we always

get a negative integer.

C. When a positive integer and a negative integer is

added we always get a negative integer

D. Additive inverse of an integer 2 is (– 2) and

additive inverse of (– 2) is 2.

Answer:

7. On the following number line value 'Zero' is shown by
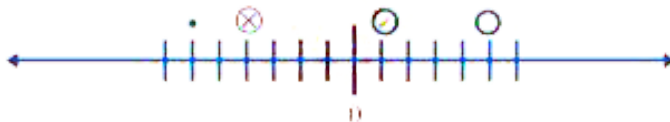
the point.

A. X

B. Y

C. Z

D. W

Answer:

▶ **Watch Video Solution**

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8. If represent some integers on number line, then descending order of these numbers is

A. ●, ⊗, ⊘, ○

B. ⊗, ●, ⊘, ○

C. ○, ⊘, ⊗, ●

D. ○, ●, ⊗, ○

Answer:

9. On the number line, the value of $(-3) \times 3$ lies on right hand side of

A. -8

B. -4

C. 0

D. 9

Answer:

▶ **Watch Video Solution**

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10. The value of $5 \div (-1)$ does not lie between

A. 0 and -10

B. 0 and 10

C. -4 and -15

D. -6 and 6

Answer:

11. Water level in a well was 20m below ground level. During rainy season, rain water collected in different water tanks was drained into the well and the water level rises 5 m above the previous level. The wall of the well is 1m 20 cm high and a pulley is fixed at a height of 80 cm. Raghu wants to draw water from the well. The minimum length of the rope that he can use is

    A. 17 m

    B. 18 m

C. 96 m

D. 97 m

Answer:

12. $(- 11) \times 7$ is not equal to

A. $11 \times (- 7)$

B. $- (11 \times 7)$

C. $(- 11) \times (- 7)$

D. $7 \times (- 11)$

Answer:

13. $(-10) \times (5) + (-7)$ is equal to

    A. -57

    B. 57

    C. -43

    D. 43

Answer:

14. Which of the folllowing is not the additive inverse of a ?

A. $-(-a)$

B. $a \times (-1)$

C. $-a$

D. $a \div (-1)$

Answer:

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15. Which of the following is the multiplicative identity for an integer a ?

A. a

B. 1

C. 0

D. -1

Answer:

16. $[(- 8) \times (- 3)] \times (- 4)$ is not equal to

A. $(- 8) \times [(- 3) \times (- 4)]$

B. $[(- 8) \times (- 4)] \times (- 3)$

C. $[(- 3) \times (- 8)] \times (- 4)$

D. $(- 8) \times (- 3) - (- 8) \times (- 4)$

Answer:

17. $(- 25) \times [6 + 4)$ is not same as

A. $(- 25) \times 10$

B. $(- 25) \times 6 + (- 25) \times 4$

C. $(- 25) \times 6 \times 4$

D. $- 250$

Answer:

18. -35×107 is not same as

A. $-35 \times (100 + 7)$

B. $(-35) \times 7 + (-35) \times 100$

C. $-35 \times 7 + 100$

D. $(-30 - 5) \times 107$

Answer:

19. $-(43) \times (-99) + 43$ is equal to

A. 4300

B. -4300

C. 4257

D. -4214

Answer:

20. $(-16) \div 4$ is not same as

A. $(-4) \div 16$

B. $-(16 \div 4)$

C. $16 \div (-4)$

D. -4

Answer:

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21. Which of the following does not represent an integer?

A. $0 \div (- 7)$

B. $20 \div (- 4)$

C. $(- 9) \div 3$

D. $(- 12) \div 5$

Answer:

22. Which of the following is different from the others?

A. 20 + (–25)

B. (– 37) – (– 32)

C. $(-5) \times (-1)$

D. $(45) \div (-9)$

Answer: C

23. Which of the following shows the maximum rise in temperature?

    A. $23°\,to32°$

    B. $-10°\,to+1°$

    C. $18°\,to-11°$

    D. $-5°\,to5°$

Answer:

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24. If a and b are two integers, then which of the following may not be an integer?

A. a+b

B. a-b

C. $a \times b$

D. $a \div b$

Answer:

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25. For a non-zero integer a which of the following is not defined?

A. $a \div 0$

B. $0 \div a$

C. $a \div 1$

D. $1 \div a$

Answer: A

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26. Encircle the odd one of the following

A. (–3, 3)

B. (–5, 5)

C. (–6, 1)

D. (–8, 8)

Answer:

27. Encircle the odd one of the following

A. $(-1, -2)$

B. $(-5, +2)$

C. $(-4, +1)$

D. $(-9, +7)$

Answer:

28. Encircle the odd one of the following

A. $(-9) \times 5 \times 6 \times (-3)$

B. $(9 \times (-5) \times 6 \times (-3)$

C. $(-9) \times (-5)xX(-6) \times 3$

D. $9 \times (-5) \times (-6) \times 3$

Answer:

▶ **Watch Video Solution**

29. Encircle the odd one of the following

A. $(-100) \div 5$

B. $- (81) \div 9$

C. $(- 75) \div 5$

D. $(- 32) \div 9$

Answer:

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30. Encircle the odd one of the following

A. $(- 1) \times (- 1)$

B. $(- 1) \times (- 1) \times (- 1)$

C. $(- 1) \times (- 1) \times (- 1) \times (- 1)$

D.

$$(- 1) \times (- 1) \times (- 1) \times (- 1) \times (- 1) \times (- 1)$$

Answer:

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31. $(- a) + b = b +$ additive inverser of ____

▶ Watch Video Solution

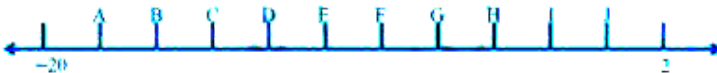**32.** ____ $\div (- 10) = 0$

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33. $(-157) \times (-19) + 157 =$

34. $[(-8) +$ ____]+____=_____+[(-3)+_____]=-3

35. On the following number line, $(-4) \times 3$ is represented by the point ____

36. If x, y and z are integers then $\left(x^+\underline{\quad}\right)+z=\underline{\quad}+$

$(y+\underline{\quad})$

> ▶ **Watch Video Solution**

37. (-43)__ = -43

> ▶ **Watch Video Solution**

38. $(-8) + (-8) + (-8) = \underline{\quad} \times (-8)$

> ▶ **Watch Video Solution**

39. $11 \times (-5) = -(\_\_\_\_\text{x}\_\_\_\_) = \_\_\_\_$

40. $(-9) \times 20 = \_\_\_\_$

41. $(-23) \times (42) = (-42) \times \_\_\_\_$

42. While multiplying a positive integer and a negative integer, we multiply them as _____ numbers and put a _____ sign before the product.

43. If we multiply _____ number of negative integers, then the resulting integer is positive

44. If we multiply six negative integers and six positive integers, then the resulting integer is _____.

45. If we multiply five positive integers and one negative integer, then the resulting integer is _____.

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46. _____ is the multiplicative identity for integers.

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47. We get additive inverse of an integer a when we multiply it by

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48. $(-25) \times (-2) =$ ____

49. $(-5) \times (-6) \times (-7) =$ ____

50. $3 \times (-1) \times (-15) =$ _____

51. $[(12) \times (-7)] \times 5=$ _____ $\times [(-7) \times$ ____$]$

52. $23 \times (-99) =$ ____ $\times (-100 +$ ___$)=23 \times$ ____ $+23 \times$ ____

53. ____ $\times (-1) = -35$

54. ____ $\times\ (-1) = 47$

55. $88 \times$ _____ $= -88$

56. _____ $\times\ (-93) = 93$

57. fill in the blank to make the statement true.

$(-40) \times$ _____ $=80$

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58. _____ $\times (-23) = -920$

> ▶ Watch Video Solution

59. fill in the blank to make the statement true.

When we divide a negative integer by a positive integer, we divide them as whole numbers and put a _____ sign before quotient.

60. fill in the blank to make the statement true.

When –16 is divided by _____ the quotient is 4.

61. Division as the inverse of multiplication

62. $65 \div (- 13) =$ _____

63. $(-100) \div (-10) = $ _____

64. $(-225) \div 5 = $ _____

65. _____ $\div (-1) = -83$

66. _____ $\div (-1) = 75$

67. $51 \div$ ___ $= -51$

68. $113 \div$ ___ $=-1$

69. $(-95) \div$ _____ $=95$

70. $(-69) \div (69) = $ _____

71. $(-28) \div (-28) = $ _____

72. 5 – (– 8) is same as 5 + 8.

73. (– 9) + (– 11) is greater than (– 9) – (– 11).

74. Sum of two negative integers always gives a number smaller than both the integers.

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75. Difference of two negative integers cannot be a positive integer.

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76. State True or false :We can write a pair of integers whose sum is not an integer.

77. Integers are closed under subtraction.

78. (− 23) + 47 is same as 47 + (− 23).

79. When we change the order of integers, their sum remains the same.

80. When we change the order of integers their difference remains the same.

81. Going 500 m towards east first and then 200 m back is same as going 200 m towards west .Find the displacement.

82. State whether the statements are true or false

$$(- 5) \times (33) = 5 \times (- 33)$$

83. State whether the statements are true or false

$$(- 19) \times (- 11) = 19 \times 11$$

84. State whether the statements are true or false

$$(- 20) \times (5 - 3) = (- 20) \times (- 2)$$

85. State whether the statements are true or false

$4 \times (- 5) = (- 10) \times (- 2)$

86. State whether the statements are true or false

$(- 1) \times (- 2) \times (- 3) = 1 \times 2 \times 3$

A. $- 3 \times 3 = - 12 - (- 3)$

B.

C.

D.

Answer:

87. State whether the statements are true or false

$$-3 \times 3 = -12 - 3$$

88. Product of two negative integers is a negative integer. True or false.

89. Product of three negative integers is a negative integer. True or false.

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90. Product of a negative integer and a positive integer is a positive integer

▶ **Watch Video Solution**

91. State True or false : When we multiply two integers their product is always greater than both the integers.

▶ **Watch Video Solution**

92. Integers are closed under multiplication.

▶ **Watch Video Solution**

93. $(-237) \times 0$ is same as $0 \times (-39)$

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94. Multiplication is not commutative for integers.

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95. (–1) is not a multiplicative identity of integers.

▶ **Watch Video Solution**

96. State True or false 99×101 can be written as $(100 - 1) \times (100 + 1)$

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97. If a, b, c are integers and $b \neq 0$ then $a \times (b - c) = a \times b - a \times c$ is true or false.

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98. State whether the statements are true or false

$$(a + b) \times c = a \times c + a \times b$$

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99. State whether the statements are true or false

$$a \times b = b \times a$$

▶ **Watch Video Solution**

100. State whether the statements are true or false

$$a \div a = b \div a$$

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101. State whether the statements are true or false

$$a - b = b - a$$

▶ Watch Video Solution

102. State whether the statements are true or false

$$a \div (-b) = -(a \div b)$$

▶ Watch Video Solution

103. $a \div (-1) = -a$

▶ Watch Video Solution

104. Multiplication fact $(-8) \times (-10) = 80$ is same as division fact $80 \div (-8) = (-10)$

105. Integers are closed under division.

106. State whether the statements are true or false

$[(-32) \div 8] \div 2 = -32 \div [8 \div 2]$

107. State True or False :The sum of an integer and its additive inverse is zero (0).

108. The successor of $0 \times (-25)$ is $1 \times (-25)$

109. Observe the following patterns and fill in the blanks to make the statements true:

$-5 \times 4 = -20$

$-5 \times 3 = -15 = -20 - (-5)$

$-5 \times 2 = \underline{\quad\quad} = -15 - (-5)$

$-5 \times 1 =$ _____=____

$-5 \times 0 = 0 =$ _____

$-5 \times -1 = 5 =$ ____

$-5 \times -2 =$ _____=_____

110. Observe the following patterns and fill in the blanks to make the statements true:

$7 \times 4 = 28$

$7 \times 3 =$ _____=28-7

$7 \times 2 =$ _____ = _____-7

$7 \times 1 = 7 =$ ____-7

$7 \times 0 =$ ___= _____-_____

$7 \times -1 = -7 =$ _____-_____

$7 \times -2 =$ _____ = _____-_____

$7 \times -3 =$ _____ = _____-_____

111. An atom consists of charged particles called electrons and protons. Each proton has a charge of +1 and each electron has a charge of –1. Remember number of electrons is equal to number of protons, while answering these questions:

What is the charge on an atom?

112. Science Application: An atom consists of charged particles called electrons and protons. Each proton has a charge of +1 and each electron has a charge of –1. Remember number of electrons is equal to number of protons, while answering these questions:

What will be the charge on an atom if it loses an electron?

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113. Science Application: An atom consists of charged particles called electrons and protons. Each proton has a charge of +1 and each electron has a charge of –1. Remember number of electrons is equal to number of

protons, while answering these questions:

What will be the charge on an atom if it gains an electron?

114. An atom changes to a charged particle called ion if it loses or gains electrons. The charge on an ion is the charge on electrons plus charge on protons. Now, write the missing information in the table given below:

Name of Ion	Proton Charge	Electron Charge	Ion Charge
Hydroxide Ion	+9	—	-1
Sodium Ion	+11	—	+1
Aluminium Ion	+13	-10	—
Oxide Ion	+8	-10	—

115. Social Studies Application: Remembering that 1AD came immediately after 1BC, while solving these problems take 1BC as –1 and 1AD as +1

The Greeco-Roman era, when Greece and Rome ruled Egypt started in the year 330 BC and ended in the year 395 AD. How long did this era last?

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116. Social Studies Application: Remembering that 1AD came immediately after 1BC, while solving these problems take 1BC as –1 and 1AD as +1

Bhaskaracharya was born in the year 1114 AD and died in the year 1185 AD. What was his age when he died?

117. Social Studies Application: Remembering that 1AD came immediately after 1BC, while solving these problems take 1BC as –1 and 1AD as +1

Turks ruled Egypt in the year 1517 AD and Queen Nefertis ruled Egypt about 2900 years before the Turks ruled. In what year did she rule?

118. Social Studies Application: Remembering that 1AD came immediately after 1BC, while solving these problems take 1BC as –1 and 1AD as +1

Greek mathematician Archimedes lived between 287 BC and 212 BC and Aristotle lived between 380 BC and 322 BC. Who lived during an earlier period?

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119. The table shows the lowest recorded temperatures for each continent. Write the continents in order from the lowest recorded temperature to the highest

recorded temperature.

The Lowest Recorded Temperatures	
Continent	Temperature (in Fahrenheit)
Africa	$-11°$
Antarctica	$-129°$
Asia	$-90°$
Australia	$-9°$
Europe	$-67°$
North America	$-81°$
South America	$-27°$

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120. Write a pair of integers whose product is –12 and there lies seven integers between them (excluding the given integers).

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121. From given integers in Column I match an integer of Column II so that their product lies between –19 and –6:

Column I	Column II
-5	1
6	-1
-7	3
8	-2

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122. Write a pair of integers whose product is – 36 and whose difference is 15.

▶ Watch Video Solution

123. Match the following

	Column I		Column II
(a)	$a \times 1$	(i)	Additive inverse of a
(b)	1	(ii)	Additive identity
(c)	$(-a) \div (-b)$	(iii)	Multiplicative identity
(d)	$a \times (-1)$	(iv)	$a \div (-b)$
(e)	$a \times 0$	(v)	$a \div b$
(f)	$(-a) \div b$	(vi)	a
(g)	0	(vii)	$-a$
(h)	$a \div (-a)$	(viii)	0
(i)	$-a$	(ix)	-1

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124. You have Rs 500 in your savings account at the beginning of the month. The record below shows all of your transactions during the month. How much money

is in your account after these transactions?

Cheque No.	Date	Transaction Description	Payment	Deposit
384102	4/9	Jal Board	₹ 120	₹ 200
275146	12/9	Deposit		
384103	22/9	LIC India	₹ 240	₹ 150
801351	29/9	Deposit		

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125. Write a positive integer and a negative integer whose sum is a negative integer.

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126. Write a positive integer and a negative integer whose sum is a positive integer.

127. Write a positive integer and a negative integer whose difference is a negative integer.

128. Write a positive integer and a negative integer whose difference is a positive integer.

129. Write two integers which are smaller than − 5 but their difference is − 5.

130. Write two integers which are greater than – 10 but

their sum is smaller than – 10.

131. Write two integers which are greater than – 4 but

their difference is smaller than – 4

132. Write two integers which are smaller than – 6 but their difference is greater than – 6.

133. Write two negative integers whose difference is 7.

134. Write two integers such that one is smaller than – 11, and other is greater than –11 but their difference is – 11.

135. Write two integers whose product is smaller than both the integers.

136. Write two integers whose product is greater than both the integers.

137. What's the Error? Ramu evaluated the expression –7 – (–3) and came up with the answer –10. What did Ramu do wrong?

138. What's the Error? Reeta evaluated –4 + d for d = –6

and gave an answer of 2. What might Reeta have done

wrong?

139. The table given below shows the elevations relative

to sea level of four locations.

Taking sea level as zero, answer the following questions:

Location	Elevation (in m)
A	-180
B	1600
C	-55
D	3200

Which location is closest to sea level?

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140. The table given below shows the elevations relative

to sea level of four locations.

Taking sea level as zero, answer the following questions:

Location	Elevation (in m)
A	-180
B	1600
C	-55
D	3200

Which location is farthest from sea level?

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141. The table given below shows the elevations relative

to sea level of four locations.

Taking sea level as zero, answer the following questions:

Location	Elevation (in m)
A	−180
B	1600
C	−55
D	3200

Arrange the locations from the least to the greatest elevation.

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142. You are at an elevation 380 m above sea level as you start a motor ride. During the ride, your elevation changes by the following metres: 540 m, −268 m, 116 m, −152 m, 490 m, −844 m, 94 m. What is your elevation relative to the sea level at the end of the ride?

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143. Evaluate the following, using distributive property.

$$-39 \times 99$$

144. Evaluate the following, using distributive property.

$$(- 85) \times 43 + 43 \times 9 - 15)$$

145. Evaluate the following, using distributive property.

$$53 \times (- 9) - (- 109) \times 53$$

146. Evaluate the following, using distributive property.

$68 \times (- 17) + (- 68) \times 3$

147. If $*$ is an operation such that for integers a and b

we have

$a * b = a \times b + (a \times a + b \times b)$

then find $(- 3) * (- 5)$

148. If $*$ is an operation such that for integers a and b we have

$$a * b = a \times b + (a \times a + b \times b)$$

then find $(-6) * 2$

149. If Δ is an operation such that for integers a and b we have

$$a \Delta b = a \times a - 2 \times a \times b + b \times b$$

then find (i) $4\Delta(-3)$

(ii) $(-7)\Delta(-1)$

150. Below u, v, w and x represent different integers, where u = −4 and $x \neq 1$. By using following equations, find each of the values:

$$u \times v = u$$

$$x \times w = w$$

$$u + x = w$$

(a) v

(b) w

(c) x

151. Height of a place A is 1800 m above sea level. Another place B is 700 m below sea level. What is the

difference between the levels of these two places?

152. The given table shows the freezing points in 0F of different gases at sea level. Convert each of these into 0C to the nearest integral value using the relation and complete the table,.

$$C = \frac{5}{9}(F - 32)$$

Gas	Freezing Point at Sea Level (°F)	Freezing Point at Sea Level (°C)
Hydrogen	-435	
Krypton	-251	
Oxygen	-369	
Helium	-458	
Argon	-309	

153. Sana and Fatima participated in an apple race. The race was conducted in 6 parts. In the first part, Sana won by 10 seconds. In the second part she lost by 1 minute, then won by 20 seconds in the third part and lost by 25 seconds in the fourth part, she lost by 37 seconds in the fifth part and won by 12 seconds in the last part. Who won the race finally?

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154. A green grocer had a profit of RS 47 on Monday, a loss of Rs 12 on Tuesday and loss of Rs 8 on Wednesday. Find his net profit or loss in 3 days

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155. In a test, +3 marks are given for every correct answer and –1 mark are given for every incorrect answer. Sona attempted all the questions and scored +20 marks though she got 10 correct answers.

How many incorrect answers has she attempted?

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156. In a test, +3 marks are given for every correct answer and –1 mark are given for every incorrect answer. Sona attempted all the questions and scored +20 marks though she got 10 correct answers.

How many questions were given in the test?

157. In a true-false test containing 50 questions, a student is to be awarded 2 marks for every correct answer and –2 for every incorrect answer and 0 for not supplying any answer. If Yash secured 94 marks in a test, what are the possibilities of his marking correct or wrong answer?

158. A multistorey building has 25 floors above the ground level each of height 5m. It also has 3 floors in the basement each of height 5m. A lift in building moves

at a rate of 1m/s. If a man starts from 50m above the ground, how long will it take him to reach at 2nd floor of basement?

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159. Taking today as zero on the number line, if the day before yesterday is 17 January, what is the date 3 days after tomorrow?

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160. The highest point measured above sea level is the summit of Mt. Everest which is 8,848m above sea level

and the lowest point is challenger Deep at the bottom of Mariana Trench which is 10911m below sea level. What is the vertical distance between these two points?

D Application Puzzle

1. Fill in the blank space of the following magic square so that the sum of the numbers in each row, each column and each of the diagonals is – 6.

-1		
3	-2	
	5	

(i)

In this magic square, sum of the numbers in every row, column and each of the diagonals is – 2. Fill in the blank:

7		-6	
		1	
0	-2		
-5		6	-8

2. 'Equinoxes' are the two days of the year when the sun is directly above the earth's equator, due to which the days and nights are of nearly equal length everywhere on the earth.

Find the name of the month of autumn equinox using suitable properties of integers by solving the following questions. Match your answer with the letter given in

the table and fill it in the box provided in each question.

(a) $(-1) \times (-2) \times (-3) \times (-4) \times (-5)$ ☐

(b) $18946 \times 99 - (-18946)$ ☐

(c) $-1 + (-2) + (-3) + (-9) + (-8)$ ☐

(d) $15 \times (-99)$ ☐

(e) $-143 + 600 - 257 + 400$ ☐

(f) $0 \div (-12)$ ☐

(g) $-125 \times 9 - 125$ ☐

(h) $\dfrac{(-1) \times (-1) \times \ldots\ldots\ldots\ldots \times (-1)}{20 \text{ times}}$ ☐

(i) $\dfrac{-4 + 4 - 4 + 4 - \ldots\ldots - 4}{21 \text{ times}}$ ☐

I	E
-1485	T
-120	S
-30	P
-4	R
-1250	B
1894600	E
600	E
0	M

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3. Fourth power of (-2) is ____.

4. Find the value of $29 + 23x$ if $4x + 13 = 2 - 7x$

5. Use the integers –2, 4, –5, –12, 20, –25 and 50 just one

each in the wheel shown in Fig. 1.4 to make the product

1200 along each line.
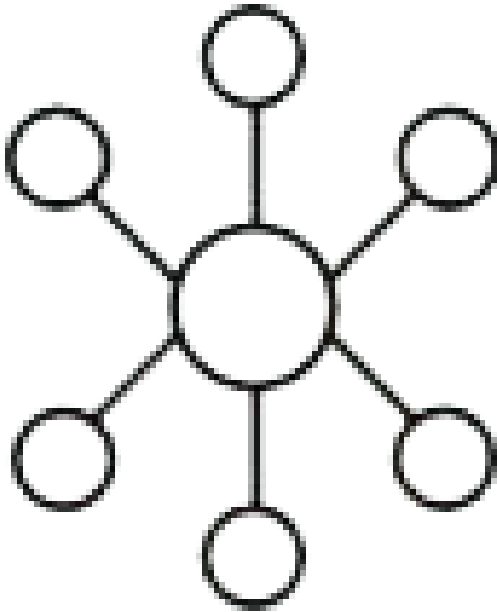
Think And Discuss

1. Compare the sums 10 + (–22) and –10 + 22.

2. Compare the sums: 9 + (– 13) and –13 + 9.

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3. Explain why 10 – (– 10) does not equal – 10 – 10

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4. Describe the answer that you get when you subtract a greater number from a lesser number

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5. List all possible multiplication and division statements for the integers with 5, –5, 6, –6 and 30, –30.

For example, $5 \times 6 = 30$.

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6. Compare the sign of the product of two negative integers with the sign of the sum of two negative integers.

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7. Suppose the product of two integers is positive. What do you know about the signs of the integers?

8. Is it not true? If + is a friend and − is an enemy.

"Your friend's friend is your friend."

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9. Is it not true? If + is a friend and − is an enemy. "Your friend's enemy is your enemy".

▶ **Watch Video Solution**

10. Is it not true? If + is a friend and – is an enemy.

"Your enemy's friend is your enemy".

▶ **Watch Video Solution**

11. Value of $-45 - (- 105)$ is equal to

▶ **Watch Video Solution**

12. A number that can negative, positive and zero is called:

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13. Explain whether –1, –4, and 5 are additive inverses.

Vocobulary

1. _____ is the _____ of addition.

2. The expression $3x \times 4$ and $4x \times 3$ are equal by the

_____

3. The expressions 1 + (2 + 3) and (1 + 2) + 3 are equal by

the_____.

4. Multiplication and _____are opposite

operations.

5. _____ and _____are commutative.