



MATHS

BOOKS - NCERT EXEMPLAR

ALGEBRA

Example

1. Write the correct answer from the given four options:

$4a$ equals

A. $4 + a$

B. $4 \times a$

C. $a \times a \times a \times a$

D. $\frac{4}{a}$

Answer: B



Watch Video Solution

2. 8 more than three times the number x can be represented as

A. $8 + x + 3$

B. $3x - 8$

C. $3x + 8$

D. $8x + 3$

Answer: C



Watch Video Solution

3. Which of the following is an equations ?

A. $x + 7$

B. $2y + 3 = 7$

C. $2p < 10$

D. $12x$

Answer: B



Watch Video Solution

4. 7 times of y subtracted from 50 can be expressed as



Watch Video Solution

5. State true or false :

$x=5$ is a solution of the equations $3-x=8$



[Watch Video Solution](#)

6. 13 subtracted from thrice of a number



[Watch Video Solution](#)

7. Megha's age (in years) is 2 more than 5 times her daughter's age



[Watch Video Solution](#)

8. Anagha, Sushant and Faizal are climbing the steps to a hill top. Anagha is at the step p . Sushant is 10 steps ahead and Faizal is 6 steps behind Anagha. Where are Sushant and Faizal? The total number of steps to the hill top is 3 steps less than 8 times what Anagha has reached. Express the total number of steps using p .



[Watch Video Solution](#)

9. Change the statements, converting expressions into statements in ordinary language

Cost of pencil is Rs x . A pen costs Rs $6x$.



Watch Video Solution

10. Change the statements, converting expressions into statements in ordinary language

Manisha is z years old. Her uncle is $5z$ years old and her aunt is $(5z - 4)$ years old.



[Watch Video Solution](#)

Exercise

1. If each match box contains 50 matchsticks , the number of matchsticks required to fill n such boxes is

A. $50 + n$

B. $50n$

C. $50 + n$

D. $50 - n$

Answer:



Watch Video Solution

2. Amulya is x years of age now. 5 years ago her age was

A. $(5 - x)$ years

B. $(5 + x)$ years

C. $(x - 5)$ years

D. $(5 + x)$ years

Answer:



Watch Video Solution

3. Which of the following represents $6 \times x$

A. $6x$

B. $\frac{x}{6}$

C. $6 + x$

D. $6 - x$

Answer:



Watch Video Solution

4. Which of the following is an equation?

A. $x + 1$

B. $x - 1$

C. $x - 1 = 0$

D. $x + 1 > 0$

Answer:



Watch Video Solution

5. If x takes the value 2, then the value of $x + 10$ is

A. 20

B. 12

C. 5

D. 8

Answer:



Watch Video Solution

6. If the perimeter of a regular hexagon is x meters . Then the length of each of its sides is

A. $(x + 6)$ metres

B. $(x - 6)$ metres

C. $\left(\frac{x}{6}\right)$ metres

D. $\left(\frac{6}{x}\right)$ metres

Answer:



Watch Video Solution

7. Which of the following equations has $x = 2$ as a solution ?

A. $x + 2 = 5$

B. $x - 2 = 0$

C. $2x + 1 = 0$

$$D. x + 3 = 6$$

Answer:



Watch Video Solution

8. For any two integers x and y . Which of the following suggests that operation of additions is commutative ?

A. $x + y = y + x$

B. $x + y > x$

C. $x - y = y - x$

D. $x \times y = y \times x$

Answer:



Watch Video Solution

9. Which of the following equations does not have a solutions is integers ?

A. $x + 1 = 1$

B. $x - 1 = 3$

C. $2x + 1 = 6$

D. $1 - x = 5$

Answer:



Watch Video Solution

10. In algebra , $a \times b$ means ab . But in arithmetic 3×5 is

A. 35

B. 53

C. 15

D. 8

Answer:



Watch Video Solution

11. In algebra, Letters may stand for

A. known quantities

B. unknown quantities

C. fixed numbers

D. none of these

Answer:



Watch Video Solution

12. " Variable " means that it

A. can take different values

B. has a fixed value

C. can take only 2 values

D. can take only three values

Answer:



Watch Video Solution

13. $10 - x$ means

- A. 10 is subtracted x times
- B. x is subtracted 10 times
- C. x is subtracted from 10
- D. 10 is subtracted from x

Answer:



Watch Video Solution

14. Savitri has a sum of Rs. x . She spent Rs 1000 on grocery, Rs 500 on clothes and Rs. 400 on educations and received Rs 200 as a gift . How much money (in Rs) is left with her?

A. $x - 1700$

B. $x - 1900$

C. $x + 200$

D. $x - 2100$

Answer:



Watch Video Solution

15. The perimeter of the triangle shown in figure. is

`##NCERT_EXM_MAT_VI_C07_E01_015_Q01.png`

width="80%">

A. $2x + y$

B. $x + 2y$

C. $x + y$

D. $2x-y$

Answer:



Watch Video Solution

16. The area of a square having each side x is

A. $x \times x$

B. $4x$

C. $x + x$

D. $4 + x$

Answer:



Watch Video Solution

17. The expression obtained when x is multiplied by 2 and then subtracted from 3 is

A. $3-2x$

B. $2x+3$

C. $x+x$

D. $4+x$

Answer:



Watch Video Solution

18. $\frac{q}{2} = 3$ has a solution

A. 6

B. 8

C. 3

D. 2

Answer:



Watch Video Solution

19. $x - 4 = -2$ has a solutions

A. 6

B. 2

C. -6

D. -2

Answer:



Watch Video Solution

20. $\frac{4}{2} = 2$ denotes a

- A. numerical equation
- B. algebraic expression
- C. equations with a variable
- D. false statement

Answer:



Watch Video Solution

21. Kanta has p pencil in her box. She puts q more pencils in the box the total number of pencils with her are

A. $p+q$

B. pq

C. $p-q$

D. $\frac{p}{q}$

Answer:



Watch Video Solution

22. The equation $4x = 16$ is satisfied by which value of x

A. 4

B. 2

C. 12

D. -12

Answer:



Watch Video Solution

23. I think of a number and on adding 13 to it ,I get 27. The equations for this is

A. $x - 27 = 13$

B. $x - 13 = 27$

C. $x + 27 = 13$

D. $x + 13 = 27$

Answer:



Watch Video Solution

24. The distance (in km) travelled in h hours at a constant speed of 40 km per hour is



Watch Video Solution

25. p kg of potatoes are bought for Rs 70. Cost of 1kg of potatoes (in Rs) is



Watch Video Solution

26. An auto rickshaw charges Rs 10 for the first kilometre then Rs 8 for each such subsequent kilometre. The total charge (in Rs) for d kilometres is



Watch Video Solution

27. If $7x + 4 = 25$, then the value of x is



Watch Video Solution

28. The solution of the equations

$$3x + 7 = -20 \text{ is}$$



Watch Video Solution

29. x exceeds y by 7 can be expressed as



Watch Video Solution

30. 8 more than three times the number x can be written as _____



Watch Video Solution

31. Number of pencils bought for Rs. x at the rate of Rs. 2 per pencil is _____



Watch Video Solution

32. The number of days in w weeks is



[Watch Video Solution](#)

33. Annual salary at r rupees per month along with a festival bonus of Rs 2000 is



[Watch Video Solution](#)

34. The two digit number whose ten's digits is t and unit's digit is u is



[Watch Video Solution](#)

35. The variable used in the equations

$$2p + 8 = 18 \text{ is}$$



[Watch Video Solution](#)

36. x metres = _____ centimetres



[Watch Video Solution](#)

37. p litres = _____ millilitres



[Watch Video Solution](#)

38. r rupees = _____ paise



Watch Video Solution

39. If the presents age of Ramandeep is n years. Then her age after 7 years will be _____



Watch Video Solution

40. If I spend f rupees from 100 rupees. The money left with me is _____ rupees.



[Watch Video Solution](#)

41. 0 is a solution of the equations $x + 1 = 0$



[Watch Video Solution](#)

42. The equations $x + 1 = 0$ and $2x + 2 = 0$ have the same solutions



[Watch Video Solution](#)

43. If m is a whole number. Then $2m$ denotes a multiple of 2.



[Watch Video Solution](#)

44. The additive inverse of an integers x is $2x$.



[Watch Video Solution](#)

45. If x is a negative integer, $-x$ is a positive integer.



Watch Video Solution

46. State True or False:

$2x - 5 > 11$ is an equation.



Watch Video Solution

47. State True or False:

In an equations, the LHS is equal to the RHS



Watch Video Solution

48. State True or False:

In the equation $7k - 7 = 7$ the variable is 7.



Watch Video Solution

49. State True or False:

$a = 3$ is a solutions of the equations

$$2a - 1 = 5$$



Watch Video Solution

50. State True or False:

The distance between New Delhi and Bhopal is not a variable.



Watch Video Solution

51. State True or False:

t minutes are equal to $60t$ seconds.



Watch Video Solution

52. State True or False:

$x = 5$ is the solutions of the equations

$$3x + 2 = 20$$



Watch Video Solution

53. State True or False:

One third of a number added to itself gives 8

can be expressed as $\frac{x}{3} + 8 = x$.



Watch Video Solution

54. State True or False:

The difference between the ages of two sisters

Leela and Yamini is a variable.



Watch Video Solution

55. State True or False:

The number of lines that can be drawn through a point is a variable.



Watch Video Solution

56. Write the algebraic expression for:

One more than twice the number.



Watch Video Solution

57. Write the algebraic expression for:

$20^{\circ} C$ less than the present temperature.



Watch Video Solution

58. Write the algebraic expression for:

The successor of an integer.



Watch Video Solution

59. Write the algebraic expression for:

The perimeter of an equilateral triangle, if side of the triangle is m .



Watch Video Solution

60. Write the algebraic expression for:

Area of the rectangle with length k units and breadth n units.



Watch Video Solution

61. Write the algebraic expression for:

Omar helps his mother 1 hours more than his sister does.



Watch Video Solution

62. Write the algebraic expression for:

Two consecutive odd integers.



Watch Video Solution

63. Write the algebraic expression for:

Two consecutive even integers.



Watch Video Solution

64. Write the algebraic expression for:

Multiple of 5.



Watch Video Solution

65. Write the algebraic expression for:

The denominator of a fractions is 1 more than its numerator.



Watch Video Solution

66. Write the algebraic expression for:

The height of Mount Everest is 20 times the height of Empire State building.



Watch Video Solution

67. If a note book costs Rs p and a pencil costs Rs. 3 then the total cost (in Rs) of two note books and one pencil is



Watch Video Solution

68. Write the algebraic expression for:

z is multiplied by -3 and the result is subtracted from 13 .



Watch Video Solution

69. Write the algebraic expression for:

p is divided by 11 and the result is added to 10.



Watch Video Solution

70. Write the algebraic expression for:

x times of 3 is added to the smallest two digits number.



Watch Video Solution

71. Write the expression for

6 times q is subtracted from the smallest two digit number.



[Watch Video Solution](#)

72. Write an equations for which 0 is the solution



[Watch Video Solution](#)

73. Write two equations for which 2 is the solution.



Watch Video Solution

74. Write an equations whose solutions is not a whole number.



Watch Video Solution

75. Change the statements, converting expressions into statements in ordinary language

A pencil costs Rs p and pen costs Rs $5p$.



Watch Video Solution

76. Change the statements, converting expressions into statements in ordinary language

Leela contributed Rs y towards the Prime

Minister's Relief Fund. Leela is now left with Rs($y+10000$).



[Watch Video Solution](#)

77. Kartik is n years old. His father is $7n$ years old.



[Watch Video Solution](#)

78. Change the statements, converting expressions into statements in ordinary

language

The maximum temperature on a day in Delhi was $p^{\circ}C$. The minimum temperature was $(p - 10)^{\circ}C$.



[Watch Video Solution](#)

79. Change the statements, converting expressions into statements in ordinary language:

John planted t plants last years. His friend Jay planted $2t+10$ plants that years.



[Watch Video Solution](#)

80. Change the statements, converting expressions into statements in ordinary language:

Shared used to take p cups tea a day . After having some health problem . He takes $p-5$ cups of tea a day.



[Watch Video Solution](#)

81. Change the statements, converting expressions into statements in ordinary language:

The number of students dropping out of school last years was m . number of students dropping out of school this years is $m-30$.



Watch Video Solution

82. Change the statements, converting expressions into statements in ordinary

language:

Price of petrol was Rs p per litre last month .

Price of petrol now is Rs($p-5$) per litre.



[Watch Video Solution](#)

83. Change the statements, converting expressions into statements in ordinary language:

Khader's monthly salary was Rs. P in the years 2005. his salary in 2006 was Rs ($P+1000$).



[Watch Video Solution](#)

84. Change the statements, converting expressions into statements in ordinary language:

The number of girls enrolled in a school last years was g . the number of girls enrolled this years in the school is $3g-10$.



Watch Video Solution

85. Translate of the following statements into an equation. Using x as the variable.

13 subtracted from twice a number gives 3.



[Watch Video Solution](#)

86. Translate of the following statements into an equation. Using x as the variable.

One fifth of a number is 5 less than that number.



[Watch Video Solution](#)

87. Translate of the following statements into an equation. Using x as the variable.

Two third of number is 12.



Watch Video Solution

88. Translate of the following statements into an equation. using x as the variable.

9 added to twice a number gives 13.



Watch Video Solution

89. Translate of the following statements into an equation.

Using x as the variable, 1 subtracted from one-third of a number gives 1.



Watch Video Solution

90. Translate of the following statement into an equations:

The perimeter (p) of an equilateral triangle is three times of its side (a).



Watch Video Solution

91. Translate of the following statement into an equations:

The diameter (d) of a circle is twice its radius (r).



Watch Video Solution

92. Translate of the following statement into an equations:

The selling price (s) of an item is equal to the

sum of the cost price (c) of an item and the profit (p) earned.



[Watch Video Solution](#)

93. Translate of the following statement into an equations:

Amount (A) is equal to the sum of Principal (P) and Interest (I).



[Watch Video Solution](#)

94. Let Kanika's present age be x years.

Complete the following table. Showing ages of

her relatives :

Situation (described in ordinary language)	Expressions
(i) Her brother is 2 years younger.	_____
(ii) Her father's age exceeds her age by 35 years.	_____
(iii) Mother's age is 3 years less than that of her father.	_____
(iv) Her grand father's age is 8 times of her age.	_____



Watch Video Solution

95. If m is a whole number is less than 5.

complete the table and by inspection of the

table find the solutions of the equation $2m -$

$$5 = -1 :$$

m					
$2m - 5$					



[Watch Video Solution](#)

96. A class with p students has planned a picnic. Rs 50 per student is collected, out of which Rs 1800 is paid in advance for transport. How much money is left with them to spend on other items?



[Watch Video Solution](#)

97. In a village, there are 8 water tanks to collect rain water. On a particular day, x litres of rain water is collected per tank. If 100 litres of water was already there in one of the tanks, what is the total amount of water in the tanks on that day?



Watch Video Solution

98. What is the area of a square whose side is m cm?



[Watch Video Solution](#)

99. Perimeter of a triangle is found by using the formula $P = a + b + c$ where a , b and c are the sides of the triangle. Write the rule that is expressed by this formula in words.



[Watch Video Solution](#)

100. Perimeter of a rectangle is found by using the formula $P=2(l+ w)$, where l and w are

respectively the length and breadth of the rectangle. Write the rule that is expressed by this formula in words.



[Watch Video Solution](#)

101. On my last birthday, I weighed 40 kg . If I put on m kg of weight after a year , what is my present weight ?



[Watch Video Solution](#)

102. Length and breadth of a bulletin board are r cm and t cm, respectively.

What will be the length (in cm) of the aluminium strip required to frame the board, if 10cm extra strip is required to fix it properly.



Watch Video Solution

103. Sunita is half the age of her mother Geeta.

Find their ages

(i) after 4 years ?

(ii) before 3 years.



Watch Video Solution

104. Match the items of Column I with that of

Column II:

Column I

Column II

- | | |
|--|--------------|
| (i) The number of corners of a quadrilateral | (A) = |
| (ii) The variable in the equation $2p + 3 = 5$ | (B) constant |
| (iii) The solution of the equation $x + 2 = 3$ | (C) +1 |
| (iv) solution of the equation $2p + 3 = 5$ | (D) -1 |
| (v) A sign used in an equation | (E) p |
| | (F) x |



Watch Video Solution