MATHS

BOOKS - NAND LAL PUBLICATION

ALGEBRA

Solution Of Textual Questions Page 224

1. Can you write the rule for making pattern for F?

Table given below gives the number of match

sticks required to make a pattern of Fs.

Number of F's	1	2	3	4	5	6	7	8	...
Number of match sticks	4	8	12	16	20	24	...	...	...

Watch Video Solution

Solution Of Textual Questions Page 232

1. Sarita and Ameena decide to paly a game of expressions. They take the variable x and the number 3 and see how many expressions they can make. The condition is that they should use not more than one out of the four number

operations and every expression must have x in it. Can you help them?

Sarita thinks of (x + 3)

Then Ameena comes up with (x - 3)

Is (3x+5) allowed?

Is (3x + 3) allowed?

Watch Video Solution

Solution Of Textual Questions Page 239

1. Complete the entries in the following table and explain why your answer is Yes/No.

S.No.	Equation	Value of the Variable	Working	Solution (Yes/No)
1.	$x+10=30$	$x=10$	$10+10=20\neq 30$	No
2.	$x+10=30$	$x=30$	$30+10=40\neq 30$	No
3.	$x+10=30$	$x=20$	$20+10=30=30$	Yes
4.	$p-3=7$	$p=5$	$5-3=2\neq 7$	No
5.	$p-3=7$	$p=15$	$15-3=12\neq 7$	No
6.	$p-3=7$	$p=10$	$10-3=7=7$	Yes
7.	$3n=21$	$n=9$	$3\times 9=27\neq 21$	No
8.	$3n=21$	$n=7$	$3\times 7=21=21$	Yes
9.	$\frac{t}{5}=4$	$t=25$	$\frac{25}{5}=5\neq 4$	No
10.	$\frac{t}{5}=4$	$t=20$	$\frac{20}{5}=4=4$	Yes
11.	$2l+3=7$	$l=5$	$2\times 5+3$ $=10+3=13\neq 7$	No
12.	$2l+3=7$	$l=1$	$2\times 1+3$ $=2+3=5\neq 7$	No
13.	$2l+3=7$	$l=2$	$2\times 2+3$ $=4+3=7=7$	Yes

Watch Video Solution

Exercise 11 1

1. Find the rule,which gives the number of matchsticks required to make the following matchstick patterns.Use a variable to write the rule.

A matchstick pattern of letter T and t

Watch Video Solution

2. Find the rule,which gives the number of matchsticks required to make the following matchstick patterns.Use a variable to write the

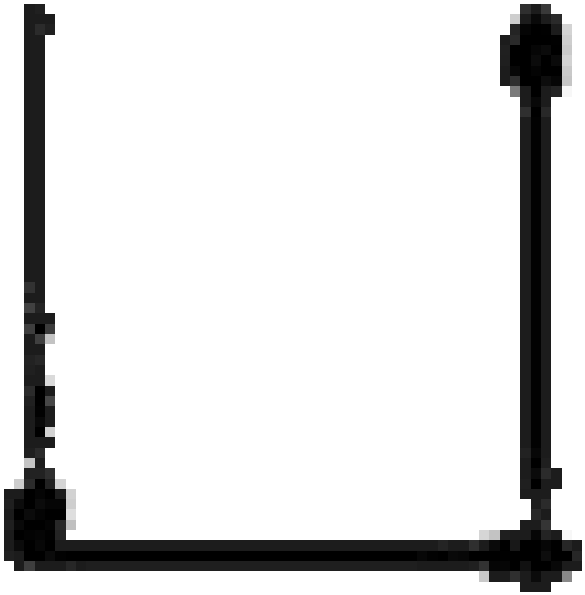
rule.

A matchstick pattern of letter Z as z

Watch Video Solution

3. Find the rule which gives the number of match sticks required to make the following match stick pattern. Use a variable to write the

rule.

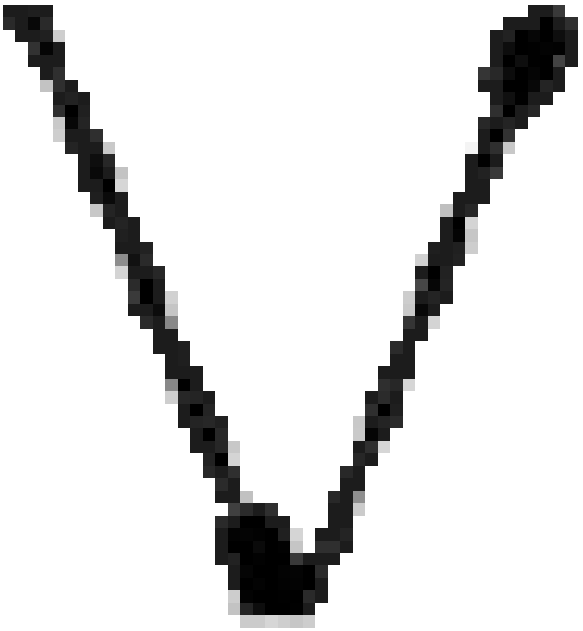


For U :

Watch Video Solution

4. Find the rule which gives the number of match sticks required to make the following

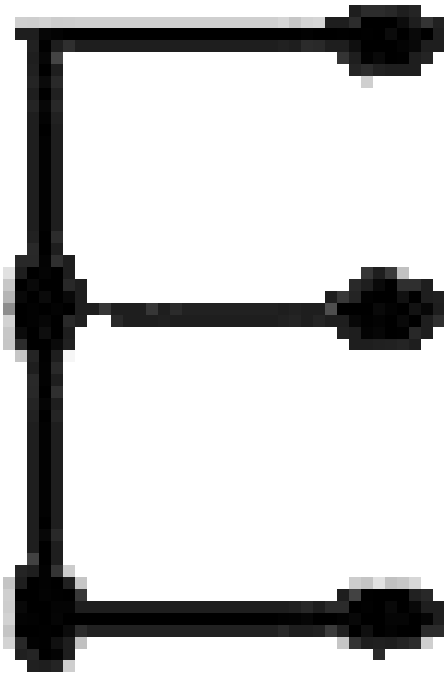
match stick pattern. Use a variable to write the rule.



For V :

Watch Video Solution

5. Find the rule which gives the number of match sticks required to make the following match stick pattern. Use a variable to write the rule.

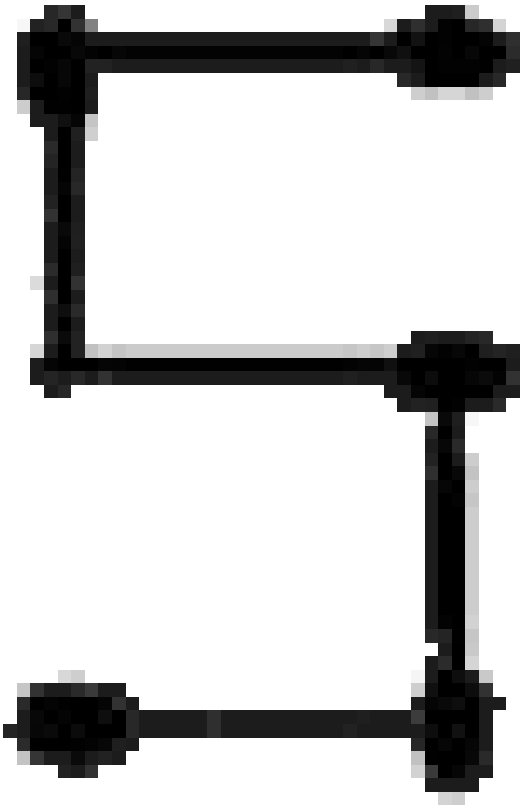


For E :

Watch Video Solution

6. Find the rule which gives the number of match sticks required to make the following match stick pattern. Use a variable to write the

rule.

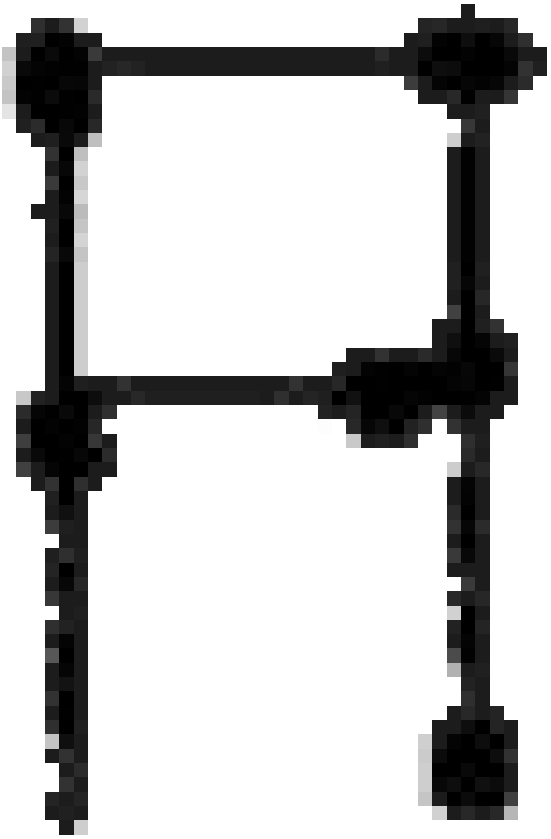


For S :

Watch Video Solution

7. Find the rule which gives the number of match sticks required to make the following match stick pattern. Use a variable to write the rule.

For A :



Watch Video Solution

8. We already know the rule for the pattern of letters L,C and F.Some of the ltters fom Q.1 (given above) give us the same rule as that given by L.Which are these ?Why does this happen?

Watch Video Solution

9. Cadets are marching in a parade.There are 5 cadets in a row.What is the rule,which gives the number of cadets,given the number of rows?(Use n for the number of rows.)

Watch Video Solution

10. If there are 50 mangoes in a box,how will you write the total number of mangoes in terms of the number of boxes ?(Use b for the number of bxes.)

Watch Video Solution

11. the teacher distributes 5 pencils per student.Can you tell how many pencils are neede,given the number of students?(Uses for the number of students.)

Watch Video Solution

12. A bird flies 1 kilometre in one minute.Can you express the distance covered by the bird

in terms of its flying time in minutes?(Use t for flying time in minutes)

Watch Video Solution

13. Radha is drawing a dot Rangoli(a beautiful pattern of lines joining dots with chalk powder as in Fig.) She has 8 dots in a row.How many dots will her Rangoli have for r rows ?How many dots are there if there are 8 rows?If there ae 10 rows?

Watch Video Solution

14. Leela is Radha's youger sister.Leela is 4 years younger than Radha.Can you write Leela's age in terms of Radha's age ?Take Radha 's age to be x years.

Watch Video Solution

15. Mother has made laddus.She gives some laddus to guests and family members, still 5

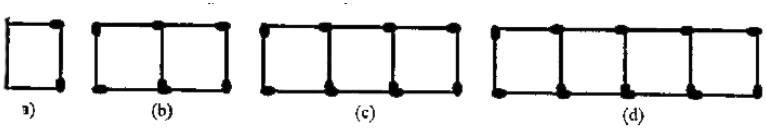
laddus remain .If the number of laddus mother gave away is l, how many laddus did she make?

Watch Video Solution

16. Oranges are to be transferred from larger boxes into smaller boxes. When a large box is emptied, the oranges from it fill two smaller boxes and still, 10 oranges remain outside. If the number of oranges in a small box is taken to be x, what is the number of oranges in the larger box?

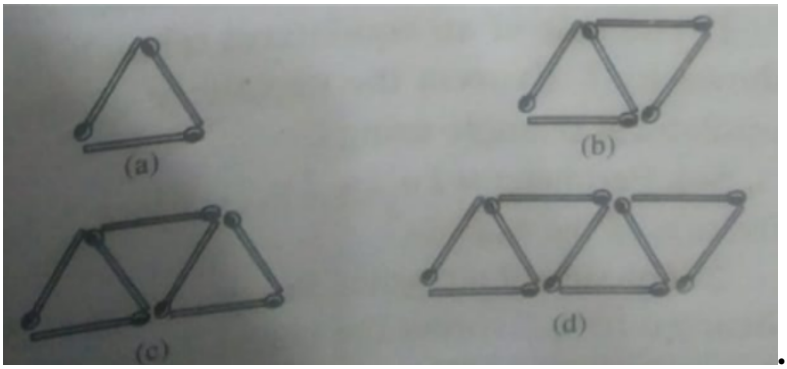
Watch Video Solution

17. Look at the match sticks patterns of squares. The squares are not separate. Two neighbouring square have a common match stick. Observe the patterns and find the rule take gives the number of match sticks in term of numbr of squares.



Watch Video Solution

18. Figs. Below gives a matchstick pattern of triangles. As in Exercise 11 (a) above find the general rule that gives the number of matchsticks in terms of the number of triangles.



Watch Video Solution

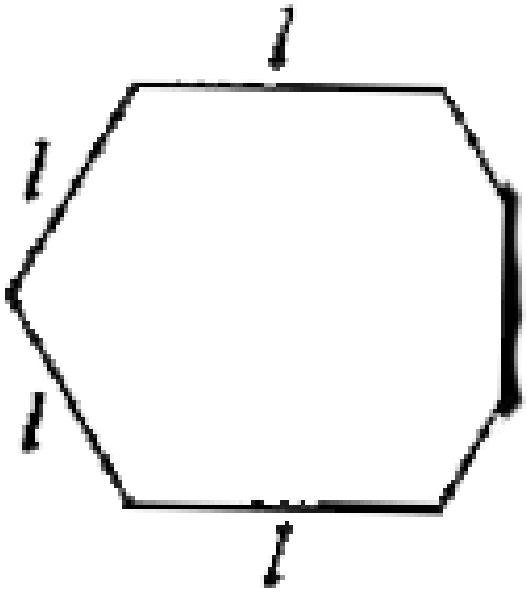
Exercise 11 2

1. The side of an equilateral triangle is shown by x. Express the perimeter of the equilateral triangle using x.

Watch Video Solution

2. The side of the regular hexagon (fig. 11.10) is denoted by l. Express the perimeter of the

hexagon using l.



Watch Video Solution

3. A cube is a three-dimensional figure. It has six faces and all of them are identical squares. The length of an edge of the cube is given by l.

Find the formula for the total length of the edges of a cube.

Watch Video Solution

4. The diameter of a circle is a line, which joins two points on the circle and also passes through the center of the circle. (In the adjoining figure AB is a diameter of the circle, C is its center). Express the diameter of the

circle (d) in terms of its radius (r).

Watch Video Solution

5. To find the sum of three numbers 14, 27 and 13. We can have two ways.

We may add 27 and 13 to get 40 and then add 14 to get the sum 54. Thus

This can be done for any three numbers. This property is known as the associativity of the addition of numbers. Express this property

which we have already studied in the chapter on Whole Numbers, in a general way, by using variables a,b and c.

 Watch Video Solution

6. To find the sum of three numbers 14, 27 and 13. We can have two ways.

We may add 27 and 13 to get 40 and then add 14 to get the sum 54. Thus

This can be done for any three numbers. This property is known as the associativity of the

addition of numbers. Express this property which we have already studied in the chapter on Whole Numbers, in a general way, by using variables a,b and c.

Watch Video Solution

7. Write 10 other simple expressions and tell how they have been formed.

$x + 4$

Watch Video Solution

8. Write 10 other simple expressions and tell how they have been formed.

$y - 9$

Watch Video Solution

9. Write 10 other simple expressions and tell how they have been formed.

5a

Watch Video Solution

10. Write 5 other simple expressions and tell how they have been formed.

$\frac{x}{7}$

Watch Video Solution

11. Write 5 other simple expressions and tell how they have been formed.

-3m

Watch Video Solution

12. Write 10 other simple expressions and tell how they have been formed.

$2m + 1$

Watch Video Solution

13. Write 5 other simple expressions and tell how they have been formed.

$4y - 5$

Watch Video Solution

Exercise 11 3

1. Make up as many expressions with numbers (no variables) as you can, from three numbers 2, 3 and 5. Every number should be used not more than once. Use only addition, subtraction and multiplication.

Make the other expressions.

$2 \times (5 - 3)$

Watch Video Solution

2. Make up as many express ions with numbers (no variables) as you can, from three numbers 5, 9 and 8. Every number should be used not more than once. Use only addition, subtraction and multiplication.

Make the other expressions.

$9 \times (8 - 5)$

Watch Video Solution

3. Make up as many expressions with numbers (no variables) as you from three numbers 5, 7 and 8. Every number should be used not more than once. Use only addition, subtraction and multiplication.

 Watch Video Solution

4. Make up as many expressions with numbers (no variables) as you from three numbers 5, 7 and 8. Every number should be used not more

than once. Use only addition, subtraction and multiplication.

Watch Video Solution

5. Make up as many expressions with numbers (no variables) as you from three numbers 5, 7 and 8. Every number should be used not more than once. Use only addition, subtraction and multiplication.

Watch Video Solution

6. Make up as many expressions with numbers (no variables) as you from three numbers 5, 7 and 8. Every number should be used not more than once. Use only addition, subtraction and multiplication.

 Watch Video Solution

7. Make up as many express ions with numbers (no variables) as you can, from three numbers 5, 7 and 8. Every number should be used not more than once. Use only addition,

subtraction and multiplication.

Make the other expressions.

$(8 + 5) \times 7$

Watch Video Solution

8. Make up as many expressions with numbers (no variables) as you from three numbers 5, 7 and 8. Every number should be used not more than once. Use only addition, subtraction and multiplication.

Watch Video Solution

9. Which of the following are expression with numbers only?

$(x + 9)$

Watch Video Solution

10. Which of the following are expression with numbers only?

$(7 \times 20) - 8z$

Watch Video Solution

11. Which of the following are expression with numbers only?

$5(9-x)+4\times 6$

Watch Video Solution

12. Which of the following are expression with numbers only?

10

Watch Video Solution

13. Which of the following are expression with numbers only?

9x+10

Watch Video Solution

14. Which of the following are expression with numbers only?

$9 - 2n$

Watch Video Solution

15. Which of the following are expression with numbers only?

$(7 \times 20) - (5 \times 10) - 45 + p$

Watch Video Solution

16. Identify the operation (addition, Subtraction, division and multiplication) forming the following expressions and tell how the expressions have been formed.

$x + 9, x - 7, z + 7, z - 17$

Watch Video Solution

17. Identify the operation (addition, Subtraction, division and multiplication) forming the following expressions and tell how the expressions have been formed.

$4x, \frac{x}{8}, 3x$

Watch Video Solution

18. Identify the operation (addition, Subtraction, division and multiplication) forming the following expressions and tell

how the expressions have been formed.

$2y + 17, 2y - 17$

Watch Video Solution

19. Identify the operation (addition, Subtraction, division and multiplication) forming the following expressions and tell how the expressions have been formed.

$2m, 6m + 9, \ -7m + 4$

Watch Video Solution

20. Give expressions for the following cases.

9 added to x

Watch Video Solution

21. Give expressins in the following cases:

7 subtracted from p

Watch Video Solution

22. Give expressins in the following cases:

p multiplied by 7

Watch Video Solution

23. Give expressins in the following cases:

p divided by 7

Watch Video Solution

24. Give expressins in the following cases:

7 subtracted from -m

Watch Video Solution

25. Give expressins in the following cases:

-p multipied by 5

Watch Video Solution

26. Give expressions for the following cases.

-x divided by 9

Watch Video Solution

27. Give expressins in the following cases:

p multiplied by -5.

Watch Video Solution

28. Give expressions in the following cases:

11 added to 2m

Watch Video Solution

29. Give expressions in the following cases:

11 subtracted from 2m

Watch Video Solution

30. Give expressions in the following cases:

5 times y to which 3 is added

Watch Video Solution

31. Give expressions in the following cases:

5 times y from which 3 is subtracted.

Watch Video Solution

32. Give expressions in the following cases:

y is multiplied by -8

Watch Video Solution

33. Give expressions in the following cases:

y is multiplied by -8 and then 5 is added to the result.

Watch Video Solution

34. Give expressions in the following cases:

y is multiplied by 5 and the result is subtracted from 16.

35. Give expressions in the following cases:

y is multiplied by -5 and the result is added to 16.

36. Form expressions using t and 4.Use not more than one number operation.Every expression must have t in it.

Watch Video Solution

37. Form expressions using y, 2 and 7.Every expression must have y in it.Use only two number operations.These should be different.

Watch Video Solution

Exercise 11 4

1. Answer the following

Take Sarita's present age to be y years.

What will be her age 5 years from now?

Watch Video Solution

2. Answer the following

Take Aman present age to be x years.

What was his age 10 years back?

Watch Video Solution

3. Answer the following

Take Sarita's present age to be y years.

Sarita's grandfrather's age is 6 times her age.What is grandfather's age?

Watch Video Solution

4. Answer the following

Take Aman's present age to be x years.

His Grandmother is 5 years younger than grandfather. What is grandmother's age?

Watch Video Solution

5. Answer the following

Take Sarita's present age to be y years.

Sarita's father's age is 5 years more thabn 3 times Sarit's age.What is her father's age?

Watch Video Solution

6. Answer the following

The length of a rectangular hall is 4 metres less than 3 times the breadth of the hall.What is the length ,if the breadth is b metres?

Watch Video Solution

7. Answer the following

A rectangular box has height h cm.Its length is 5 times the height and breadth is 10 cm less

than the length.Express the length and the breadth of the box in trems of the heigth.

 Watch Video Solution

8. Answer the following

Meena, Beena, and Leena are climbing the steps to the hilltop. Meena is at step s, Beena is 8 steps ahead and Leena 7 steps behind. Where are Beena and Meena? The total number of steps to the hilltop is 10 less than 4

times what Meena has reached. Express the total number of steps using s.

Watch Video Solution

9. Answer the following

A bus travels at v km per hour. It is going from Daspur to Beespur. After the bus has traveled for 5 hours. Beespur is still 20 km away. What id the distance from Daspur to Beespur? Express it using v.

Watch Video Solution

10. Change the following statements using expressions into statements in ordinary language.(For example, given Salim scores r runs in a cricket match, Nalin scores (r+15) runs. In ordinary language – Nalin scores 15 runs more than Salim).

A notebook costs `p. The book costs 3p.

 Watch Video Solution

11. Change the following statements using expression into statements in ordinary language.

Tony puts x marbles on the table. He has 5x marbles in his box.

Watch Video Solution

12. Change the following statements using expressions into statements in ordinary language.(For example, given Salim scores r

runs in a cricket match, Nalin scores (r+15) runs. In ordinary language – Nalin scores 15 runs more than Salim).

Our class has n students.The school has 20 n students.

Watch Video Solution

13. Change the following statements using expressions into statements in ordinary language.(For example, given Salim scores r runs in a cricket match, Nalin scores (r+15)

runs. In ordinary language – Nalin scores 15 runs more than Salim).

Jaggu is z years old.His uncle is 4z years old and his aunt is (4z-3) years old.

Watch Video Solution

14. Change the following statements using expressions into statements in ordinary language.(For example, given Salim scores r runs in a cricket match, Nalin scores (r+15) runs. In ordinary language – Nalin scores 15

runs more than Salim).

In an arrangement fo dots there are r rows.Each row contains 5 dots.

Watch Video Solution

15. Given : Munnu's age to be 'x' years

Can you guess what (x - 2) may show?

Can you guess what (x + 4) may show?

What (3x+7) may show?

Watch Video Solution

16. Given Sara's age today to be y years. Think of her age in the future or in the past. What will the following expression indicate?

$y + 7, y - 3, y + 4\frac{1}{2}, y - 2\frac{1}{2}$

Watch Video Solution

17. Given x students in class like football. What may 3x shows?

$3x \rightarrow$ Number of students liking basketball i.e. number of students who like basketball is

thrice the students who like football.

What may $\frac{x}{2}$ show?

Watch Video Solution

Exercise 11 5

1. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a variable.

$10 = x - 5$

Watch Video Solution

2. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the equations with a variable.

$(t-7) > 5$

Watch Video Solution

3. State which of the following are equations(with a variable).Give reason for your

answer.Identify the variable from the equations with a variable.

$\frac{4}{2} = 2$

Watch Video Solution

4. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the equations with a variable.

$7 \times 3 - 19 = 8$

Watch Video Solution

5. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the equations with a variable.

$5 \times 4 - 8 = 2x$

Watch Video Solution

6. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the

equations with a variable.

$x - 2 = 0$

Watch Video Solution

7. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a variable.

$2m < 30$

Watch Video Solution

8. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the equations with a variable.

$2n + 1 = 11$

Watch Video Solution

9. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a

variable.

$7 = (11 \times 5) - (12 \times 4)$

Watch Video Solution

10. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a variable.

$7 = (11 \times 2) + p$

Watch Video Solution

11. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the equations with a variable.

$20 = 5y$

Watch Video Solution

12. State which of the following are equations(with a variable).Give reason for your answer.Identify the variable from the

equations with a variable.

$$\frac{3q}{2} < 5$$

Watch Video Solution

13. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a variable.

$$z + 125 > 24$$

Watch Video Solution

14. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a variable.

$20 - (10 - 5) = 3 \times 5$

Watch Video Solution

15. State which of the following are equation (with a variable). Give reasons for your answer. Identify the variable from the equation with a

variable.

$7 - x = 5$

Watch Video Solution

16. Complete the entries in the third column of the table :

S.No.	Equation	Value of Variable	Equations satisfied Yes/No
(a)	$10y = 80$	$y = 10$ then $10 \times 10 = 100$ $100 \neq 80$	Equation is not satisfied.
(b)	$10y = 80$	$y = 8$ then $10 \times 8 = 80$ $80 = 80$	Equation is satisfied.
(c)	$10y = 80$	$y = 5$ then $10 \times 5 = 50$ $50 \neq 80$	Equation is not satisfied.

Watch Video Solution

17. Pick out the solutiion from the values given in the bracket next to each equation. Sow that the other values do not satisfy the equation.

$3m = 60$ (20, 5, 12, 15)

Watch Video Solution

18. Pick out the solutiion from the values given in the bracket next to each equation. Sow that the other values do not satisfy the equation.

$n + 8 = 20$ (12, 8, 20, 0)

Watch Video Solution

19. Pick out the solutiion from the values given in the bracket next to each equation. Sow that the other values do not satisfy the equation.

p - 10 = 5 (0, 10, 5, 15)

Watch Video Solution

20. Pick out the solutiion from the values given in the bracket next to each equation. Sow that

the other values do not satisfy the equation.

$\frac{x}{2} = 2$ (3, 2, 6, 4)

Watch Video Solution

21. Pick out the solutiion from the values given in the bracket next to each equation. Sow that the other values do not satisfy the equation.

r - 4 = 0 (4, -4, 8, 0)

Watch Video Solution

22. Pick out the solutiion from the values given in the bracket next to each equation. Sow that the other values do not satisfy the equation.

x + 4 = 2 (-2, 0, 2, 4)

Watch Video Solution

23. Complete the table and by impection of the table find the solution of the eqaution $m + 10 = 16$.

m	1	2	3	4	5	6	7	8	9	10	-	-	-	
$m+10$														

Watch Video Solution

24. Complete the table and by impection of the table find the solution of the eqaution $5t = 35$.

t	3	4	5	6	7	8	9	10	11	–	–	–	–	–	–
$5t$															

Watch Video Solution

25. Complete the table and find the solution of the eqaution $\frac{z}{3} = 4$ using the table.

z	8	9	10	11	12	13	14	15	16	-	-	-	-
$\frac{z}{3}$	$2\frac{2}{3}$	3	$3\frac{1}{3}$										

Watch Video Solution

26. Complete the table and find the solution of the eqaution $m - 7 = 3$.

m	5	6	7	8	9	10	11	12	13	-	-
$m-7$											

Watch Video Solution

27. Solve the following riddles,you may yourself construct such riddles.

Who am I?

Go around a square

Counting every corner

Thrice and no more!

Add the count to me

To get exactly thirty four!.

Watch Video Solution

28. Solve the following riddles,you may yourself construct such riddles.

Who am I?

For each day of the week

Make an upcount from me

If you make no mistake

You will get twenty three!.

Watch Video Solution

29. Solve the following riddles,you may yourself construct such riddles.

Who am I?

I am a special number

Take away from me a six!

A whole cricket team

You will still be able to fix!.

 Watch Video Solution

30. Solve the following riddles,you may yourself construct such riddles.

Who am I?

Tell me who I am I shall give a pertty clue!

You will get me backIf you take me out of twenty two!?

Watch Video Solution

Additional Questions For Practice Very Short Answer Type Questions

1. Which of the following is an equations.

A. $x + 2$

B. $x - 2$

C. $x - 2 = 0$

D. none of these

Answer: C

Watch Video Solution

2. Which of the following does not have a solution in integers

A. $x + 2 = 2$

B. $x - 1 = 7$

C. $3x + 1 = 8$

D. none of these

Answer: C

Watch Video Solution

3. x = 3 is the solution of the equation

A. $x + 11 = 8$

B. $x + 8 = 5$

C. $x + 8 = 1$

D. none of these

Answer: C

Watch Video Solution

4. The operations not involved in forming expression $2x + \frac{2}{x}$ from the variable x and 2 is

A. addition

B. subratction

C. division

D. none of these

Answer: B

Watch Video Solution

5. Quotient of x and 2 added to 9 is

A. $\frac{x}{2} + 9$

B. $\frac{2}{x} + 9$

C. $\frac{x \div 2}{9}$

D. none of these

Answer: A

Watch Video Solution

6. Ria earns Rs x per day and spends Rs y per day. Then her saving for the month of January is

A. Rs (31x - y)

B. Rs 31(x - y)

C. Rs 31(y - x)

D. none of these

Answer: B

Watch Video Solution

7. In -7x the literal factor is

A. -1

B. -7

C. x

D. none of these

Answer: C

Watch Video Solution

8. If $2a^2b^2$ and $3ab$ represents length and breadth of a rectangle room then area is

A. $6a^2b^2$

B. $2a^2b^2$

C. $6a^3b^3$

D. none of these

Answer: C

Watch Video Solution

9. Fill in the blanks.

Letters used to represent numbers are called _____.

 Watch Video Solution

10. Fill in the blanks.

Symbol having fixed numerical value is called _____.

 Watch Video Solution

11. Fill in the blanks.

Algebraic expression 9x has ___ term.

Watch Video Solution

12. Fill in the blanks.

The two digit number whose tens digit is y and one digit is x is _____.

Watch Video Solution

13. Fill in the blanks.

5 less than thrice a number y is _____.

Watch Video Solution

14. Fill in the blanks.

The value of $5x - 15 = 0$ when x = _____.

Watch Video Solution

15. Fill in the blanks.

Trial and error is one of the methods to obtain the _____.

Watch Video Solution

16. Fill in the blanks.

An equation is the statement in which the symbol ____ is used.

Watch Video Solution

17. State whether True or False.

Literal, like variable is a term that does not have fixed value -

Watch Video Solution

18. State whether True or False.

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

Watch Video Solution

19. State whether True or False.

Coefficient of -y in $-2x^2y$ is $(-2x)^2$.

Watch Video Solution

20. State whether True or False.

Number of angles in a triangle is a variable -

Watch Video Solution

21. State whether True or False.

An equation is satisfied by definite value of the variable -

Watch Video Solution

22. State whether True or False.

If length of rectangle is twice its breadth then its area is constant -

Watch Video Solution

23. State whether True or False.

The equation $x - 1 = 0$ and $3x - 3 = 0$ have same solution.

Watch Video Solution

24. State whether True or False.

The expression 4x has a variable .

Watch Video Solution

Additional Questions For Practice Short Answer Type Questions

1. How is variable different from a constant?

Watch Video Solution

2. What do you mean by the solution of the equation? How many solutions does a linear equation have?

Watch Video Solution

3. Change the following algebraic expression into statements using ordinary language.

Rohan is y years old.His father is 3y years old and his Mother is (3y - 5) years old.

 Watch Video Solution

4. Change the following algebraic expression into statements using ordinary language.

Shopkeeper sold x water melons. There are 4x water melons.

Watch Video Solution

5. Change the following algebraic expression into statements using ordinary language.

Neeraj is z years old. His wife is (z - 3) years old.

Watch Video Solution

6. Change the following algebraic expression into statements using ordinary language.

There are x rows of saplings in the garden. There are 7 sapling in each row.

Watch Video Solution

7. Translate the following into equations

12 subtracted from thrice a number gives 6.

Watch Video Solution

8. Translate the following into equations

Two-third of a number is 1 less than the number.

Watch Video Solution

9. Translate the following into equations

Perimeter of a square is 4 times its sides.

 Watch Video Solution

10. Translate the following into equations

Radius of a circle is half the diameter.

 Watch Video Solution

Additional Questions For Practice Long Answer Type Questions

1. 3 times a number increased by 5 gives 20. Find the number.

Watch Video Solution

2. Twice a number added to 5 times itself is equal to 70. Find the numbers.

Watch Video Solution

3. Radha pays Rs 81 for 6 pens and 3 pencils. If the cost of a pen is 4 times the cost of pencil, how much did she pay for pen?

Watch Video Solution

4. Kavita, Jia and Aarti at multi storeyed apartments. Aarti stays at t^{th} floor. Kavita's flat is 3 floor above Aarti's flat and Jia's flat is 2 floor below Aarti's flat. The total number of floors in the apartment are 2 more than 5

times the floor number where Aarti stays. Express the floor number of Kavita, Jia and total number of floors in terms of t.

Watch Video Solution

Additional Questions For Practice Hots High Order Thinking Skills

1. Observe the pattern of match sticks.

Write the rule to find the number of match

sticks in the pattern involving 7 huts. How many huts will be involved in a pattern having 101 sticks?

Watch Video Solution

Sample Paper For Practice

1. Coefficient of the variable in the expression $3 - 2x^2$ is

A. 3

B. -2

C. x^2

D. none of these

Answer: B

Watch Video Solution

2. Aryan is x years old. His age 7 years ago was

A. $x + 7$

B. 7x

C. $x - 7$

D. none of these

Answer: C

Watch Video Solution

3. 3 - x means

A. 3 subtracted from x

B. x subtracted from 3

C. x is subtracted 3

D. none of these

Answer: B

Watch Video Solution

4. There are x toffees in a box. Mother puts 'y' more toffees in the box. The total number of toffees in the box are

A. xy

B. x + y

C. $\frac{x}{y}$

D. none of these

Answer: B

 Watch Video Solution

5. Variable means that it

A. can take different values

B. has a fixed value

C. neither of the two

D. none of these

Answer: A

 Watch Video Solution

6. If x takes the value -1 then the value of the expression 5x - 4 is

A. 1

B. 9

C. -9

D. none of these

Answer: C

Watch Video Solution

7. Fill in the blanks.

Mathematical expression formed using arithmetic operations in numbers and variables is known as _____.

Watch Video Solution

8. Fill in the blanks.

An equation is the statement in which the symbol ____ is used.

Watch Video Solution

9. Fill in the blanks.

Trial and error is one of the methods to obtain the _____.

Watch Video Solution

10. Fill in the blanks.

The value of $2x - 12$ is 0 when x = _____.

Watch Video Solution

11. Fill in the blanks.

An algebric expression using the numeral 2 and 3 and the variable x in such a way that only two arithmatic operations are used is _____.

Watch Video Solution

12. Fill in the blanks.

General rule for finding thye number of sticks in a n triangles for the sequences ΔΔΔΔΔΔ is ____.

Watch Video Solution

13. Answer the following.

Difference of two numbers is 7. If you write 'a' for the smaller number, how do you write the larger number.

Watch Video Solution

14. Answer the following.

Find the perimeter of the triangle whose three sides are x, x, y.

Watch Video Solution

15. Answer the following.

Shopkeeper brought 200 shirts. He sold x shirts every day. Write an algebric expression

to show the number of shirts that would be left after 1 week.

Watch Video Solution

16. Complete the table and find the solution to the given equation.

$x + 9 = 15$

x							
$x+9$							

Watch Video Solution

17. Complete the table and find the solution to the given equation.

$6t = 42$

t							
$6t$							

Watch Video Solution

18. Which of the following represent an equation with a variable. Give reasons to justify your answer.

$7 \times 2 - 9 = 5$

Watch Video Solution

19. Which of the following represent an equation with a variable. Give reasons to justify your answer.

$m - 5 > 9$

Watch Video Solution

20. Which of the following represent an equation with a variable. Give reasons to

justify your answer.

$\frac{6}{3} = 2$

Watch Video Solution

21. Which of the following represent an equation with a variable. Give reasons to justify your answer.

$27 = 9y$

Watch Video Solution

22. Do as directed

Write the expression for

4 times y subtracted from 17

Watch Video Solution

23. Do as directed

Write the expression for

One half of y added to 3

Watch Video Solution

24. Do as directed

Evaluate $3x^2 - 2x + 1$ for $x = -1$

Watch Video Solution

25. Do as directed

Write two equations for which x = 3 is the solution.

Watch Video Solution

26. Do as directed

Ashok starts from Roorki at 5 : 00 a.m. If the speed of his car is V km/hr and he observe that at 12:00 noon he is just 30 km from Delhi. Find the distance between Delhi and Roorki. Why should we use seat belt during driving?

Watch Video Solution