

## INDIAN SCHOOL AL WADI AL KABIR

**Class VI**, Mathematics **Worksheet 1- ALGEBRA** 

OBJECTIVE TYPE (1 Mark)													
Q.1.	Which of the following is an algebraic expression?												
	A	2	В	хy	С	2+5	D	none of these.					
Q.2.	No	No. of matchsticks are use in a pattern of letter F											
	A	4	В	10	С	12	D	2					
Q.3.	Th	There are some expression given below. Which of these is an equation with variable.											
	A	<i>x</i> - 5 > 9	В	8+5 = 9	С	9 <i>x</i> < 5	D	2x + 1 = 15					
Q.4.	If	If Maya's present age is $x$ years then what will be her age two years ago.											
	Α	<i>x</i> + 2	В	<i>x</i> + 5	С	<i>x</i> - 2	D	x					
Q.5.	WI	Which of the following represent $6 \times b$ ?											
	A	6 b	В	$\frac{6}{b}$	С	6 + b	D	6 – b					
Q.6.	If	If $x$ takes the value 2, then the value of $x + 10$ is											
	A	20	В	12	С	5	D	8					
Q.7.	WI	Which of the following equations has $x = 2$ as a solution?											
	A	x + 2 = 5	В	x-2=0	С	2x + 1 = 0	D	x + 3 = 6					
Q.8.		For any two integers $\boldsymbol{x}$ and $\boldsymbol{y}$ , which of the following suggests that operation of addition is commutative?											
	A	x + y = y + x	В	x + y > x	С	x-y=y-x	D	x y = y x					
Q.9.	In algebra, letters may stand for												
	A	known quantities	В	unknown quantities	С	fixed numbers	D	None of these					
Q.10	Th	The expression obtained when $oldsymbol{x}$ is multiplied by 2 and then subtracted from 3 is											
	A	2x - 3	В	2x + 3	С	3-2x	D	3x - 2					
Q.11		Kanta has p pencils in her box. She puts q more pencils in the box. The total number of pencils with her are											
	A	p + q	В	pq	С	P - q	D	$\frac{p}{a}$					
Q.12	TI	Think of a number and on adding 13 to it, I get 27. Equation for this is											
	Α	<i>x</i> - 27 =13	В	x - 13= 27	C	x + 27 = 13	D	x + 13 = 27					

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Q.13		If a notebook costs t p and a pencil costs Rs. 3, then the total cost (in Rs.) of two notebooks and one pencil.											
	A	5 + p	В	6 + p	С	2p + 3.	D	3p + 2					
Q.14	рi	p is divided by 11 and the result is added to 10.											
	A	$\frac{p}{11} = 10$	В	$\frac{p}{11} > 10$	С	$\frac{p}{11} + 10 = 0$	D	$\frac{p}{11} + 10$					
Q.15		Translate each of the following statements into an equation. " The diameter (d) of a circle is twice its radius $(r)$ ."											
	A	d = 2 + r	В	d = 2 - r	С	d > 2 + r	D	d = 2r					
Q.16	W	Which of the following is an equation?											
	A	x - 3 > 0	В	x + 3 < 0	С	x	D	x + 3 = 0					
Q.17	nu	The number of rooms on the ground floor of a building is 12 less than the twice of the number of rooms on first floor. If the first floor has $x$ rooms, how many rooms does the ground floor has?											
	A	y = 2x - 2.	В	y = 2x + 12.	C	y = 2x - 12.	D	y = 2x					
Q.18	At	A starts his car from Delhi at 6.00 am to Amritsar. The uniform speed of his car is $\boldsymbol{x}$ km/h. At 12.00 noon, he finds that he is still 50 km away from Amritsar. Find the distance between Delhi and Amritsar.											
	A	$(6x \times 50)$ km	В	(6 <i>x</i> - 50) km	С	(6x + 50)  km	D	6 <i>x</i> km					
Q.19	Here is a pattern of houses with matchsticks:  Write the general rule for this pattern.												
	A	6 + h	В	6 - h	С	6h	D	None of these					
Q.20		If m is a whole number less than 5, complete the table and by inspection of the table, find the solution of the equation $2m - 5 = -1$ . $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$											
Q21.	Pick out the solution from the value given in the brackets against each equation. (i) $5n = 60$ (5, 15, 12) (ii) $a + 12 = 18$ (10, 6, 4)												

## Case study: Ravi went to the market to purchase some household items. He asks the shopkeeper the prices of different items, If the cost of a bread loaf is ₹ 'x', find the

cost of: a) butter which is ₹8 more than the cost of the

- bread loaf.b) 1 litre milk that is 3 times the cost of the bread loaf.
  - c) 1 kg rice that is ₹ 75 more than twice the cost of the bread loaf.
  - d) Price of an Apple juice can 3 more than is ½ of the cost of the bread loaf.
  - e) d) a pen that costs ₹ 15 less than four times the cost of the bread loaf.



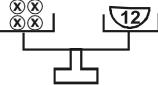
## <u>Case study:</u> Sarita's went to her grandparents' house. She was curious to know the ages of different members of her family.

If Sarita's present age is 'y' years then,

- (i) her grandfather's age is 8 times of her age.
- (ii) her grandmother is 2 years younger than grandfather.
- (iii) Her father's age is 30 years more than her age.
- (iv) Mother's age is 3 years less than that of her father
- (v) Her brother is two years younger.



**Q24.** Observe the picture and answer the following questions



Q23.

- 1. Write equation for the given picture.
- 2. What be solution of the equation.
- **Q25.** Translate each of the following statements into an equation, using x as the variable.
  - (a) 13 subtracted from twice a number gives 3.
  - (b) Two-third of a number is 12.
  - (c) 9 added to twice a number gives 13.
  - (d) 1 subtracted from one-third of a number gives 1.