

INDIAN SCHOOL AL WADI AL KABIR

Class VI- Mathematics *Worksheet- ALGEBRA*

14-02-21

OBJECTIVE TYPE (1 Mark)


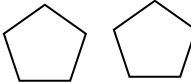
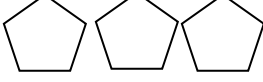
Q.1.	If each box contains 45 chocolates, the number of chocolates required to fill “ n ” such boxes is							
A	$45 + n$	B	$45 n$	C	$45 - n$	D	$45 \div n$	
Q.2.	The perimeter of a regular octagon with side “ s ” units is							
A	$8 s$	B	$6 s$	C	$7 s$	D	$8 - s$	
Q.3.	Write an expression for 6 less than thrice a number is 40.							
A	$6 - 3 x = 40$	B	$3 x - 6 = 40$	C	$3 x + 6 = 40$	D	$3 - 6 x = 40$	
Q.4.	If “ p ” kg of strawberries is bought for ₹ 90, then the cost of 1 kg of strawberry is							
A	$\text{₹} \frac{90}{p}$	B	$\text{₹} \frac{p}{90}$	C	$\text{₹} 90 \times p$	D	$\text{₹} p - 90$	
Q.5.	Take Aakash’s present age as “ x ” years. Then what is his father’s age if he is 2 years more than 4 times his age.							
A	$2 - 4 x$	B	$2 x + 4$	C	$4 x + 2$	D	$2 x - 4$	
Q.6.	If “ k ” takes the value of 2 then the value of $k + 25$ is							
A	2	B	23	C	25	D	27	
Q.7.	$12 - x$ means							
A	x is subtracted 12 times	B	x is subtracted from 12	C	12 is subtracted from x	D	12 is subtracted x times	
Q.8.	Which of the following is a solution of the equation $x + 4 = 10$?							
A	$x = 10$	B	$x = 4$	C	$x = 14$	D	$x = 6$	
Q.9.	Which of the following is an algebraic equation?							
A	$6m + 1 > 14$	B	$n + 5 < 17$	C	$8a + 3 = 19$	D	$14m + 9$	
Q.10.	The rules which gives the number of matchsticks required to make matchstick pattern of letter “ M ”.							
A	$4m$	B	$6m$	C	$2m$	D	$8m$	

CASE STUDY QUESTIONS:									
These are the questions based on Simi's age and her family members. Let Simi's age be "y" years.									
(i) What will be her age 6 years ago?									
A	$6y$	B	$y + 6$	C	$y - 6$	D	$6 - y$		
(ii) What will be her age 2 years from now?									
A	$2 - y$	B	$y + 2$	C	$y - 2$	D	$2y$		
(iii) Simi's brother is 4 years elder than her. What is the age of her brother?									
A	$\frac{y}{4}$	B	$\frac{4}{y}$	C	$y - 4$	D	$y + 4$		
(iv) Simi's mother's age is 7 years more than two times Simi's age. What is mother's age?									
A	$2y + 7$	B	$7y + 2$	C	$2y - 7$	D	$7y$		
(v) Simi's grandfather is 2 less than six times Simi's age. What is the age of her grandfather?									
A	$6y + 2$	B	$2 - 6y$	C	$6y - 2$	D	$6 \times 2 \times y$		
Fill in the blanks (1 mark)									
Q.11.	Write the statement in ordinary language: A box of chocolate cost ₹ b and a box of ice-cream cost ₹ $7b$.								
Q.12.	Number of matchsticks required to make a pattern of "Z" is _____.								
Q.13.	If Anu has $3a$ red marbles and $6b$ blue marbles. Total number of marbles with her are _____.								
Q.14.	The equation $7x = 28$ is satisfied by _____.								
Q.15.	The variable used in the equation $11p - 2 = 20$ is _____.								
SECTION B (2 marks)									
Q.16.	Renita is half the age of her mother Anushka. Find their ages (i)after 5 years (ii)before 2 years.								
Q.17.	There are " n " students in a team and ₹ r is sanctioned to each for refreshment. What is the total amount sanctioned?								

Q.18. If length of a rectangle is 3 times its breadth, find the expressions for its perimeter and area, given that the breadth is b cm.

Q.19. Mintu's age is x years.
 (i) What may $x - 4$ show?
 (ii) What may $5x$ show?

Q.20. Complete the below given table:

Number of pentagons formed				-----	n pentagon
Number of sticks required					

SECTION C (4 marks)

Q.21. Use variable "t" and write expressions.
 (i) Nine times a number increased by 3.
 (ii) 6 less than twice a number.
 (iii) three fourth of a number added to 8.
 (iv) 5 more than 12 times a number.
 (v) 4 subtracted from a number.

Q.22. State whether the following statements are true or false:

(i)	$t = 2$ is a solution of $3t = 1 + 4$.
(ii)	"Half of a number subtracted from the number gives 8" can be expressed as $x - \frac{x}{2} = 8$.
(iii)	$2a + 7$ expresses two times a added to 7.
(iv)	$13b - 9 > 24$ is an algebraic equation.

Q.23. Pick out the solution from the values given in the bracket.
 (i) $6t = 48$ (12,5,10,8)
 (ii) $s - 2 = 22$ (24,32,30,34)
 (iii) $\frac{12}{x} = 4$ (6,3,2,12)
 (iv) $a + 9 = 16$ (9,3,7,8)
 (v) $14 - n = 10$ (14, 3, 11, 4)

Q.24. Complete the table and find solution of the equation $r - 6 = 4$.

r	12	7	6	10	11	13	8
r-6							

Complete the table and find the solution of the equation $b + 7 = 13$ using the table.

b	4	5	6	7	8	9	10	11	12
b + 7									

Q.25. Match the following:

1) The number of corners of a quadrilateral is	a) =
2) The variable in the equation $2p + 3 = 5$	b) constant
3) The solution of the equation $x + 2 = 3$	c) x
4) The solution of the equation $10x = 70$	d) +1
5) A sign used in an equation	e) P
	f) 7

Answers

Answers	1	B) $45n$	2	A) $8s$	3	B) $3x - 6 = 40$	4	A) $\text{₹} \frac{90}{p}$
	5	C) $4x + 2$	6	D) 27	7	B) x is subtracted from 12	8	D) $x = 6$
	9	C) $8a + 3 = 19$	10	A) $4m$		<u>CASE STUDY ANSWERS:</u> (i) (c) $y - 6$ (ii) (b) $y + 2$ (iii) (d) $y + 4$ (iv) (a) $2y + 7$ (v) (c) $6y - 2$	11	The cost of a box of ice-cream is 7 times the cost of a box of chocolate.

12	$3z$	13	$3a + 6b$	14	$x = 4$	15	p
16	<p>Anushka's age = x Renita's age = $\frac{x}{2}$ (i) <u>After 5 years:</u> Renita's age = $\frac{x}{2} + 5$ Anushka's age = $x + 5$ (ii) <u>Before 2 years:</u> Renita's age = $\frac{x}{2} - 2$ Anushka's age = $x - 2$</p>	17	$\text{₹ } n \times r$	18	<p>$l = 3b,$ <i>breadth</i> = b Perimeter = $2(3b + b)$ Area = $(3b \times b)$</p>	19	<p>(i) Age of Mintu 4 years ago. (ii) 5 times her age.</p>
20	$5, 10, 15, \dots \dots \dots 5n$	21	<p>(i) $9t + 3$ (ii) $2t - 6$ (iii) $\frac{3}{4}t + 8$ (iv) $12t + 5$ (v) $t - 4$</p>	22	<p>(i) False (ii) True (iii) True (iv) False</p>	23	<p>(i) 8 (ii) 24 (iii) 3 (iv) 7 (v) 4</p>
24	<p>(i) 6, 1, 0, 4, 5, 7, 2 $r = 10$ (ii) 11, 12, 13, 14, 15, 16, 17, 18, 19 $b = 6$</p>	25	<p>(1) b (2) e (3) d (4) f (5) a</p>				