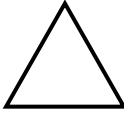

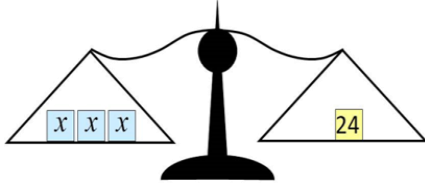


INDIAN SCHOOL AL WADI AL KABIR

Class VI, Mathematics (2023-24)

Worksheet DTQ -ALGEBRA

SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)

- Q1. Price of sugar per kg is ₹ m . If the price of rice is ₹ 11 more than 2 times of the price of sugar, what will be the price of rice?
- Q2. Write an equation for the riddle (use the variable ' x '):
Go around a triangle, counting every corner
Thrice and no more!
Add the count to me, to get exactly thirty-four!
- 
- Q3. Lala is Adhi's younger sister. Lala is 4 years younger than Adhi. Can you write Lala's age in terms of Adhi's age? Take Adhi's age to be ' m ' years.
- Q4. A pattern using matchsticks is given below: Write the general rule for this pattern (use ' n ').
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- Q5. A train travels at ' y ' km per hour. It is going from Pune to Tane. After the train has travelled 2 hours, Tane is still 20 km away. What is the distance from Pune to Tane? Express it using ' y '.
- Q6. The length of a rectangular party hall is 7 meters less than 4 times the breadth of the hall. What is the length, if the breadth is x meters?
- Q7. Observe the picture and answer the following questions:
a) Write an equation for the given picture.
b) What will be the solution of the equation?
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SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

- Q8. Which of the following are equations with variables, In the case of equations with a variable, identify the variable.
(a) $x + 35 = 70$
(b) $3p > 42$
(c) $4n - 4 = 96$

Q9.

Column A	Column B
1) $5x + 15 = 75$	A) 21
2) $4m - 1 = 83$	B) 36
3) $\frac{p}{6} = 6$	C) 12

Q10.	Rohan went to the supermarket. He bought few items from the supermarket. If the cost of 1Kg of dal is ₹ x , find the cost of the following items in terms of x : a) One litre of oil, which costs ₹ 2 more than 3 times the cost of one kg of dal. b) The cost of 1 kg of flour is ₹ 5 more than one-third the cost of 1 kg of dal. c) The price of 1 kg of horse gram is ₹ 6 less than three-fourth of the cost of dal.										
Q11.	Radhika is drawing a dot Rangoli (a beautiful pattern of lines joining dots) with chalk powder. She has 7 dots in a row. How many dots will her Rangoli have for ' n ' rows? How many dots are there if there are 8 rows? If there are 10 rows?										
Q12.	Translate each of the following statements into an equation, using x as the variable: (a) 31 subtracted from twice a number gives 5. (b) Two-third of a number is 51. (c) 14 added to twice a number gives 43.										
LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)											
Q.13	If Jani's present age is ' y ' years then, (i) her grandfather's age is 7 times of her age. (ii) her grandmother is 3 years younger than grandfather. (iii) Her father's age is 30 years more than her age. (iv) Her brother is two years younger than Jani.										
Q14.	Complete the table and find the solution to the equation $3x - 10 = 17$. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">x</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> </tr> <tr> <td style="text-align: center;">$3x - 10$</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	x	7	8	9	10	$3x - 10$				
x	7	8	9	10							
$3x - 10$											
Q15.	Pick out the solution from the values given in the brackets for the equation, $5n - 8 = 32$ (5, 10, 8, 11). Also show that other values are not satisfying the equation.										

ANSWERS

1.	₹ $(2m + 11)$	2.	$9 + x = 34$	3.	$m - 4$	4.	$3n$
5.	$(2y + 20)$	6.	$4x - 7$	7.	a) $3x = 24$; b) $x = 8$	8.	a) yes, x b) No; c) yes, n
9.	1) C; 2) A; 3) B	10.	$3x + 2$, $\frac{1}{3}x + 5$, $\frac{3}{4}x - 6$	11.	$7n, 56, 70$	12.	$2x - 31 = 5$, $\frac{2}{3}x = 51$ $2x + 14 = 43$
13.	$7y, 7y - 3$, $y + 30, y - 2$	14.	$x = 9$	15.	$n = 8$		