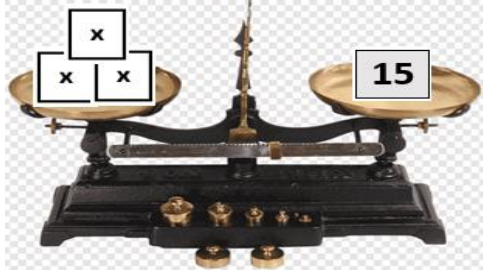



INDIAN SCHOOL AL WADI AL KABIR

Class VI, Mathematics (2022-23)

Worksheet DTQ – ALGEBRA

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

Q1.	The length of a rectangular hall is 5 meters less than 3 times the breadth of the hall. What is the length, if the breadth is x meters?
Q2.	A train travels at ' n ' km per hour. It is going from London to Manchester. After the train has travelled 4 hours, Manchester is still 25 km away. What is the distance from London to Manchester? Express it using n .
Q3.	Price of wheat per kg is ₹ p . If the price of rice is ₹ 5 more than 2 times of the price of wheat, what will be the price of rice?
Q4.	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>Observe the picture and answer the following questions:</p> <p>a) Write an equation for the given picture.</p> <p>b) What will be the solution of the equation?</p> </div> <div style="flex: 1; text-align: center;">  </div> </div>
Q5.	<p>A pattern using matchsticks is given below: Write the general rule for this pattern (use 'n').</p> <div style="text-align: center;">  </div>
Q6.	<p>Raghu went to the market to purchase some vegetables & fruits. He asks the shopkeeper the prices of different items, If the cost of 1kg onion is ₹ 'x', find the cost of:</p> <p>a) 1kg tomato which is ₹10 more than the cost of the onion.</p> <p>b) 1 kg potato is 3 times the cost of the onion.</p> <p>c) 2 kg rice is ₹ 75 more than twice the cost of the onion.</p> <p>d) Price of a pineapple is 3 more than $\frac{1}{2}$ of the cost of the onion.</p>
Q7.	Jack starts his car from Delhi at 7.00 am to Amritsar. The uniform speed of his car is x km/h. At 12.00 noon, he finds that he is still 12 km away from Amritsar. Find the distance between Delhi and Amritsar

SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

Q8.	<p>Translate each of the following statements into an equation, using x as the variable:</p> <p>(a) 21 subtracted from twice a number gives 5.</p> <p>(b) Two-third of a number is 25.</p> <p>(c) 19 added to twice a number gives 43.</p>
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Q9.	Match the following:				
	Column A		Column B		
	1) $4x + 10 = 90$		A) 21		
	2) $3m - 1 = 62$		B) 24		
3) $\frac{z}{4} = 6$		C) 20			
Q10.	Pick out the solution from the value given in the brackets for the equation, $4n+8 = 68$ (5, 15, 12). Also show that other values are not satisfying the equation.				
Q11.	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 ₹ 5 less than the cost of one kg of dal. b) The cost of 1 kg of flour is ₹2 more than one-third the cost of a kg of dal. c) The price of a kg of horse gram is ₹8 less than three-fourth of the cost of dal.				
Q12.	Which of the following are equations with variables, In the case of equations with a variable, identify the variable. (a) $x + 20 = 70$ (b) $2p > 30$ (d) $n - 4 = 100$				
LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)					
Q13.	Pick out the solution from the values given in the brackets for the equation, $5n-8 = 117$ (5, 15, 25, 20). Also show that other values are not satisfying the equation.				
Q14.	Complete the table and find the solution to the equation $2m - 10 = 16$.				
	m	9	11	13	15
	$2m - 10$				
Q15.	Answer the following: Take Clarita's present age to be 'y' years: a) What will be her age 5 years from now? b) Clarita's grandfather is 6 times her age. What is the age of her grandfather? c) Grandmother is 3 years younger than grandfather. What is grandmother's age? d) Clarita's father's age is 7 years more than 3 times Clarita's age. What is her father's age?				
ANSWERS					
Q1.	$3x - 5$	Q2.	$4n + 25 km$	Q3.	$₹(2p + 5)$
Q4.	$a)3x = 15, b)x = 5$	Q5.	$5n + 1$	Q6.	$a)x + 10, b)3x,$ $c)2x + 75, d) \frac{1}{2}x + 3$
Q7.	$5x + 12km$	Q8.	$a)2x - 21 = 5, b)\frac{2x}{3} = 25,$ $c)2x + 19 = 43$	Q9.	1-----C,2-----A, 3-----B
Q10.	$n = 15$	Q11.	$a)x - 5, b)\frac{x}{3} + 2, c)\frac{3x}{4} - 8$	Q12.	$a)yes(x), b)no, c)yes(n)$
Q13.	$n = 25$	Q14.	$m = 13$	Q15.	$a)y + 5, b)6y,$ $c)6y - 3, d)3y + 7$