INDIAN SCHOOL NIZWA - WORKSHEET

Chapter 2 Linear Equations in one variable

Name: **Class :VIII Sec:**

Multiple choice questions

1. Which of the following is a linear expression in one variable?

   A. $a^2 - 3$ B. $x + y + z$ C. 4 D. $1 + x$

2. The coefficient of y in $-x^2 - 2y + 1$ is:

   A. 1 B. -2 C. 2 D. -1

3. The perimeter of a rectangle is 15 cm and its width is $3\frac{3}{4}$ cm. Find its length in cm.

   A. $2\frac{3}{4}$ B. $-3\frac{3}{4}$ C. $3\frac{3}{4}$ D. None of these

4. Sagarika solves a linear equation. Her work is shown below:

$$3a - 2 = \frac{a}{3} - 4$$
$$3(3a - 2) = a - 4 \ldots . Step\ 1$$
$$9a - 6 = a - 4 \ldots . Step\ 2$$
$$9a - a = 6 - 4 \ldots . Step\ 3$$
$$8a = 2 \ldots . Step\ 4$$
$$a = \frac{1}{4}$$

   Is Sagarika 's solution correct? If not, in which step did Sagarika make an error?

   A. Yes, solution is correct. B. No, Step 1 is wrong

   C. No, Step 2 is wrong D. No, Step 3 is wrong

5. The shifting of a number from one side of an equation to the other is called_____.

   A. Transposition B. Commutativity C. Distributive property D. Associativity

6. If $\frac{4}{15} \times x = \frac{16}{55}$, the value of x is

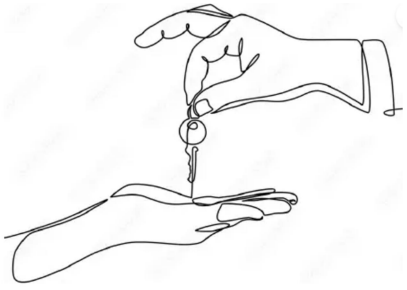
   A. $\frac{1}{15}$ B. $\frac{12}{13}$ C. $\frac{11}{12}$ D. $1\frac{1}{11}$

7. If $\frac{x}{3} + 1 = \frac{7}{15}$, then which of the following is correct?

   A. $\frac{x}{3} = \frac{7}{15} - 1$ B. $\frac{x}{3} = -\frac{7}{15} + 1$ C. $\frac{x}{3} = -\frac{7}{15} - 1$ D. none of these

8. If x is an even number, then the next even number is:

   A. $x + 1$ B. $x + 2$ C. $x + 3$ D. $x + 4$

9.	The perimeter of a rectangle is 40 cm. If its width is 10 cm, then find its length. A. 10 B. 20 C. 30 D. 40
10.	Find the value of x if $2x + 10 = 76$. A. 33 B. 7.6 C. 66 D. 32
11.	Solve: $\frac{p}{9} - \frac{1}{6}\left(p - \frac{1}{3}\right) = \frac{1}{2}(p + 1) + \frac{1}{18}$
12.	Solve: $\frac{2y-3}{8} - \frac{3}{4} = \frac{3y-5}{2} + y$
13.	Solve: $x + \frac{2x}{3} + \frac{x}{7} = 95 - \frac{x}{2}$
14.	Solve: $7(6b - 4) - 6(5b - 1) = 2(b - 8) - 4(3b + 2)$
15.	Find the solution of the equation: $\frac{18}{5}t - 3 = 5t - 4$
16.	Find the value of x: $13x + \frac{25}{4} = 3x$.
17.	If $\frac{5x}{2} = 7 - \frac{3x}{5}$, then find the numerical value of $31x - 7$.
18.	Akhineni's office in a high-rise building was on a floor that had as many floors above it as below. One day he went up 7 floors from his office, then down 4 floors and finally up 9 floors. He was at the top floor now. How many floors did the building have in total?
19.	If $\frac{2x}{5} - 3 = 7 - \frac{3x}{5} + \frac{1}{4}$, then find x.
20.	If $\frac{5x}{3} - 4 = \frac{2x}{5}$, then find the numerical value of $21x - 7$.
	CASE STUDY Anima left one-half of her property to her daughter, one-third to her son and donated the rest to an educational institute. If the donation was worth ₹1,00,000. Based on the above situation, answer the questions **21-24**: 
21.	Write the linear equation formed in the above situation.

22.	How much money did Anima have?
23.	How much money educational institute have?
24.	How much money did Anima's son and daughter have?