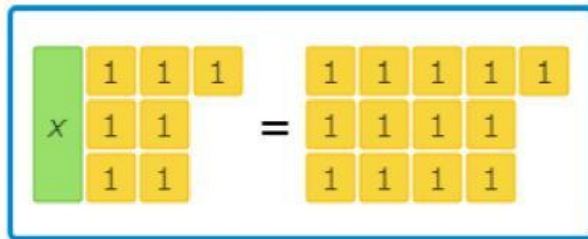


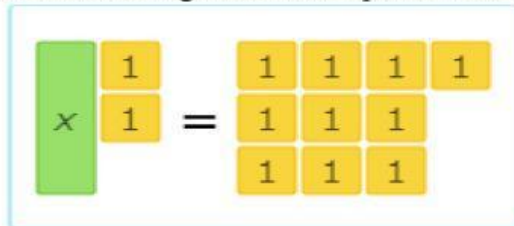
Worksheet on pattern and algebra

Question 1(ANSWER ALL QUESTIONS)

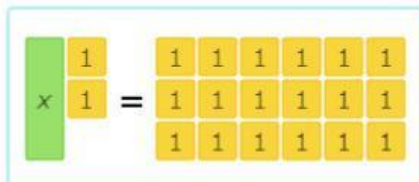
- The coefficient of xy in $3x^2zy + 7xyz - 2z^2x$ is
 a) $3z$ c) $7yz$
 b) -2 d) $7z$
- Find the value of the expressions: $a^2 + b^2 + 3ab$, where $a = 1$ and $b = -2$
 a) -1 c) 2
 b) 1 d) -2
- The length of a side of square is given as $2x + 3$. Which expression represents the perimeter of the square?
 a) $2x + 16$ c) $8x + 3$
 b) $6x + 9$ d) $8x + 12$
- The following algebraic tiles represents



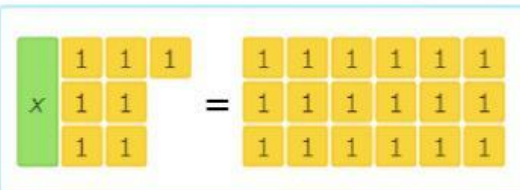
- $x + 6 = 13$ c) $x + 7 = 13$
 b) $x - 6 = 13$ d) $x - 7 = 13$
- Which set of algebra tiles represents the equation $x + 7 = 10$?



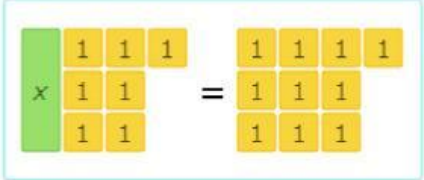
a)



b)



c)

d) 

6. Solve for s , $2 = s - 1$

- a) 1
- b) 2
- c) 3
- d) 4

7. Solve for q , $3q = 6$

- a) 1
- b) 2
- c) 3
- d) 4

8. What is the inverse operation of addition?

- a) Multiplication
- b) Division
- c) Subtraction
- d) None of the above

9. An equation is

- a) A statement expressing a relationship between two variables
- b) A mathematical expression containing an in-equality sign
- c) A mathematical statement that shows two expressions are equal
- d) A function that maps inputs to outputs

10. Which of the following represents a real-life situation that can be modelled using a linear equation?

- a) Calculating the area of a rectangle
- b) Estimating the population growth of a city over time
- c) Determining the total cost of groceries at a supermarket
- d) Predicting the trajectory of a rocket launch

11. The purpose of creating a table of values is

- a) To organize data in alphabetical order
- b) To represent mathematical relationships between variables
- c) To calculate the mean, median, and mode of a dataset
- d) To determine the area and perimeter of geometric shapes

Question 2 (Answer all the questions)

Formulate an equation based on the provided word problem

- I. The difference of 3 and a number squared
- II. 5 less than twice a number squared
- III. Five minus twice the square of a number
- IV. Four minus a number multiplied by 2
- V. Seven times the sum of a number and 1