



ALGEBRA

A. Select the correct answer.

1. Which verbal expression does not match the algebraic expression $11x$?

- a. x multiplied by 11
- b. 11 times x
- c. 11 more than x
- d. the product of 11 and x

2. Which of the following is an equation with a variable

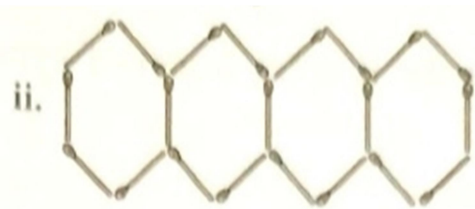
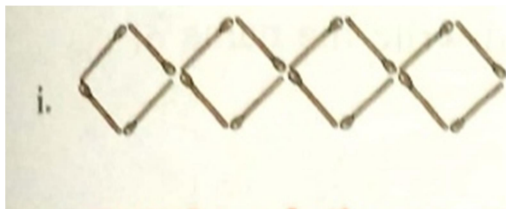
- a. $7 + 6 = 12$
- b. $a + 7 = 12$
- c. $7a > 12$
- d. $7a + 2 < 12$

B. Find the solutions to these very short-answer type questions.

1. Fill in the blanks.

- i. A quantity which can take various numerical values is called a _____.
- ii. The algebraic expression for two numbers a and b, when their product is added to one-half of their sum is _____.
- iii. The mathematical operation needed to write an algebraic expression 3 less than a number is _____.

2. Find the rule for the number of matchsticks required to form the following matchstick patterns.



C. Find the solutions to these long-answer type questions.

1. Identify the equations and solve them

i. $9x - 4$

ii. $8 \times 9 - (15 \times 4) = 12$

iii. $9 \times (15 - 5) = 90$

iv. $6x + 1 = 2x + 1$

v. $\underline{y} - 5 = 11$

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2. Write a generalised statement for the following pattern formed by matchsticks.

