

# Mathematics

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(Chapter - 11) (Algebra) (Practice Test 2)  
(Class VI)

Time: 1 Hour 15 Minutes

M. M: 25

## General Instructions:

- This question paper contains four sections: A, B, C and D. Each part is compulsory.
- Section A has 5 MCQ of one mark each.
- Section B has 3 questions of two marks each.
- Section C has 3 questions of three marks each.
- Section D has 2 questions of five marks each, attempt any 1 out of 2.
- There is no negative marking.

### Section - A

- Which of the following is an expression with numbers only?  
(A) 3                      (B) 4                      (C)  $6 + Y$                       (D) 12
- If Meenu's present age is  $x$  years, what was her age in years, 10 years back?  
(A)  $2x$                       (B)  $x^2$                       (C)  $x + 2$                       (D)  $x - 10$
- Which of the following is an equation in a variable?  
(A)  $2 < 10$                       (B)  $3 > 12$                       (C)  $x - 1 = 0$                       (D)  $2 + 3 = 3 + 2$
- Solve:  $k - 3 = 3$   
(A) -1                      (B) 2                      (C) 3                      (D) 6
- Solve:  $r + 5 = 5$   
(A) 2                      (B) 0                      (C) 4                      (D) 3

### Section - B

- Express algebraically: 3 more than  $x$ .
- The length of an edge of a cube is  $l$ . The total length of its edges is?
- The rule, which gives the number of matchsticks required to make the matchstick pattern A, is?

### Section - C

- Cadets are marching in a parade. There are 5 cadets in a row. What is the rule which gives the number of cadets, given the number of rows? (Use  $n$  for the number of rows)?
- What is the coefficient of  $b$  in  $-8abc$ ?
- Leela is Radha's younger sister. Leela is 4 years younger than Radha. Can you write Leela's age in terms of Radha's age? Take Radha's age to be  $x$  years?

### Section - D

- Oranges are to be transferred from larger boxes into smaller boxes. When a large box is emptied, the oranges from it fill two smaller boxes and still 10 oranges remain outside. If the number of oranges in a small box are taken to be  $x$ , what is the number of oranges in the larger box?
- Radha is drawing a dot Rangoli (a beautiful pattern of lines joining dots) with chalk powder. She has 9 dots in a row. How many dots will her Rangoli have for  $r$  rows? How many dots are there if there are 8 rows? If there are 10 rows?

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Answers

## Section - A

- 3
- $x - 10$
- $x - 1 = 0$
- 6
- 0

## Section - B

- The algebraic expression of the given statement is  $x + 3$ .
- 6l
- $3n$

## Section-C

- $5n$  (Hint: Let  $n$  be the number of rows

Number of cadets in a row = 5

Total number of cadets = number of cadets in a row  $\times$  number of rows =  $5n$ )

- $-8ac$

(Hint: The given algebraic expression is  $-8abc$ .

Recall that, the coefficient of any term in an algebraic expression is the multiplication of other terms in that algebraic expression.

Therefore, the coefficient of the term  $bb$  in the expression  $-8abc$  is  $-8ac$ )

- $x - 4$

(Hint: Let Radha's age be  $x$  years

Leela's age = 4 years younger than Radha =  $(x - 4)$  years]

## Section-D

- $(2x + 1)$

Number of oranges in a small box =  $x$

Number of oranges in two small boxes =  $2x$

Number of oranges remained = 10

Number of oranges in large box = number of oranges in two small boxes + number of oranges remained

=  $2x + 10$

- 90

(Hint: Number of dots in a row = 9, Number of rows =  $r$

Total number of dots in  $r$  rows = Number of dots in a row  $\times$  number of rows =  $9r$

Number of dots in 8 rows =  $8 \times 9 = 72$

Number of dots in 10 rows =  $10 \times 9 = 90$ )