

BCM SCHOOL, BASANT AVENUE, LUDHIANA

ANSWER KEY OF OCTOBER ASSIGNMENT

CLASS: VIII (MATHEMATICS)

TOPICS: LINEAR EQUATIONS IN ONE VARIABLE, EXPONENTS AND POWERS

SECTION A (MULTIPLE CHOICE QUESTIONS)

Sol.1 c) 6, 15

Sol.2 b) 10

Sol.3 a) 3

SECTION B (2 MARKS QUESTIONS)

Sol.4  $7.5 \times 10^{-3}$

Sol.5 Let the two consecutive numbers be  $x$  and  $x + 1$

A/Q  $(x + 1)^2 - x^2 = 15$

So the numbers are 7 and 8

SECTION C (3 MARKS QUESTIONS)

Sol.6 
$$\frac{3(17-3x)-5(4x+2)}{15} = \frac{15-18x+7x+14}{3}$$
$$x = 4$$

Sol.7  $x = 7$

SECTION D (5 MARKS QUESTIONS)

Sol.8  $\frac{1}{8}$

Sol.9 Let the age of Baichung be  $x$  years.

The age of his father =  $x + 29$  years,

and the age of his grandfather =  $x + 29 + 26 = (x + 55)$  years.

As per the conditions, we get

$$x + x + 29 + x + 55 = 135$$

$$\Rightarrow 3x + 84 = 135$$

$$\Rightarrow 3x = 135 - 84 \text{ (transposing 84 to RHS)}$$

$$\Rightarrow 3x = 51$$

$$\Rightarrow x = 51 \div 3 \text{ (transposing 3 to RHS)}$$

$$\Rightarrow x = 17$$

Hence Baichung's age = 17 years

Baichung's father's age =  $17 + 29 = 46$  years,

and grand father's age =  $46 + 26 = 72$  years.

# SECTION E (CASE STUDY)

Sol.10

a) Let the no. of 1 rupee coins  $x$

No. of 10 rupee coins be  $\frac{x}{2}$

No. of 5 rupee coins be  $\frac{x}{3}$

No. of 2 rupee coins be  $\frac{x}{4}$

A/Q 
$$x + \frac{x}{2} + \frac{x}{3} + \frac{x}{4} = 400$$

On solving  $x = 192$

b) No. of 5 rupee coins is 64

c) No. of 10 rupee coins is 96