

CHAPTER: 1 (INTEGERS)
WORKSHEET (WORD PROBLEMS)

→ Date - 15.06.20

SOLUTIONS (17.06.20)

1. Raghu has 30 marbles. In 5 games, he won 3 marbles each and in 7 games, he lost 2 marbles each. Find number of marbles he has at the end of the games.

Given: Total no. of marbles = 30

In 5 games, he won 3 marbles each.

$$\therefore \text{No. of marbles won} = 5 \times 3 = 15$$

In 7 games, he lost 2 marbles each.

$$\therefore \text{No. of marbles lost} = 7 \times 2 = 14$$

\therefore No. of marbles he has at the end

$$= \text{Total no. of marbles}$$

$$+ \text{no. of marbles won in 5 games}$$

$$- \text{no. of marbles lost in 7 games}$$

$$= 30 + 15 - 14$$

$$= 45 - 14$$

$$= 31$$

Therefore, he has 31 marbles at the end of the game.

2. In a class test containing 10 questions, 3 marks are given for every correct answer and '-1' mark is given for every incorrect answer. Abhishek attempts all the questions but only 6 of them are correct. What is his total score.

Given: Total no. of questions = 10

No. of questions that are correctly answered = 6

$$\therefore \text{No. of questions that are incorrectly answered} \\ = 10 - 6$$

Since marks given for each correct answer = 3

\therefore marks obtained in 6 correct answers

$$= 3 \times 6 = 18$$

Since mark given for each incorrect answer = -1
 \therefore marks for 4 incorrect answers = $4 \times -1 = -4$

$$\begin{aligned}\therefore \text{His total score} &= \text{marks for 6 correct answers} \\ &+ \text{marks for 4 incorrect answers} \\ &= 18 + (-4) \\ &= 18 - 4 \\ &= 14\end{aligned}$$

\therefore His total score in class test is 14 marks.

3. At Srinagar the temperature was -3°C on Monday and dropped by 1°C on Wednesday. If the temperature of Srinagar on Wednesday is -1°C , how much is the increase or decrease in temperature on Tuesday?

Given: temperature on Monday = -3°C
temperature on Wednesday = -1°C

Since temperature dropped by 1°C on Wednesday

\therefore We can say temperature was 1°C more on Tuesday as compared to temperature of Wednesday

\therefore Temperature of Tuesday = Temperature of Wednesday

+ 1°C

$$= -1 + 1$$

$$= 0^{\circ}\text{C}$$

\therefore There is increase in temperature on Tuesday as compared to that on Monday.

Increase in temperature on Tuesday

$$= \text{Temperature on Tuesday}$$

$$- \text{Temperature on Monday}$$

$$= 0 - (-3) = 3^{\circ}\text{C}$$

4. In a test '+5' marks is allotted for every correct answer and '-2' marks for every incorrect answer. Jaya answered all the questions and scored 30 marks. She has total 30 correct answers. Find out the no. of incorrect answers.

Given: Total marks scored = 30 marks

No. of questions correctly answered = 10

Marks allotted for each correct answer = +5

$$\therefore \text{Total marks scored in all the correct answers} \\ = 10 \times 5$$

$$\therefore \text{Marks deducted for incorrect answers} \\ = \text{Total marks obtained for correct answers} \\ - \text{actual marks obtained} \\ = 50 - 30 \\ = 20$$

We know,

marks for every incorrect answer = -2

Let the no. of incorrect answer = x

$$\therefore \text{Total marks obtained for} \\ \text{incorrect answers} = \text{Marks for} \\ \text{each incorrect answer} \times \text{No. of} \\ \text{incorrect answers}$$

$$\text{or, } 20 = 2 \times x$$

$$\therefore x = \frac{20}{2} = 10$$

\therefore No. of incorrect answers = 10.

5. In a quiz, team A scored -50, 30, 0 and team B scored 60, 30, -40 in three successive rounds. Which team scored more?

Given: Scores of team A = -50, 30, 0

$$\therefore \text{Total score of team A} = -50 + 30 + 0 = -20$$

Scores of team B = 60, 30, -40

$$\therefore \text{Total score of team B} = 60 + 30 + (-40) \\ = 60 + 30 - 40 \\ = 90 - 40 = 50$$

\therefore Team B scored more.