

Ex - 1.3

Starting from  $(-1) \times 5$ , write various products showing some pattern to show  $(-1) \times (-1) = 1$

$$-1 \times 5 = -5$$

$$-1 \times 4 = -4 = -5 + 1$$

$$-1 \times 3 = -3 = -4 + 1$$

$$-1 \times 2 = -2 = -3 + 1$$

$$-1 \times 1 = -1 = -2 + 1$$

$$-1 \times 0 = 0 = -1 + 1$$

$$-1 \times (-1) = 1 = 0 + 1 = 1$$

Q5 Find the product, using suitable properties:

$$(a) 26 \times (-48) + (-48) \times (-36)$$

$$= -48 [26 + (-36)]$$

$$= -48 [26 - 36]$$

$$= -48 \times (-10)$$

$$= 480$$

$$(b) 8 \times 53 \times (-125)$$

$$= 8 \times (-125) \times 53$$

$$= -1000 \times 53$$

$$= -53000$$

$$(c) \quad 15 \times (-25) \times (-4) \times (-10)$$

$$= 15 \times (-10) \times (-25) \times (-4)$$

$$= -150 \times 100$$

$$= -15000 \text{ Ans}$$

$$(d) \quad (-41) \times 102$$

$$-41 \times (100 + 2)$$

$$-41 \times 100 + (-41) \times 2$$

$$-4100 + (-82)$$

(e)

~~60~~

$$\text{---} = -4182 \text{ Ans}$$

~~61~~

$$(e) \quad 625 \times (-35) + (-625) \times 65$$

$$-625 (+35 + 65)$$

$$= -625 (100)$$

$$= -62500$$

$$(f) \quad 7 \times (50 - 2)$$

$$= 350 - 14$$

$$= 336$$

$$(g) \quad -17 \times (-29)$$

$$= -17 \times (-20 - 9)$$

$$= 340 + 153$$

$$= \text{---} 493$$

$$\begin{array}{r} 340 \\ + 153 \\ \hline 493 \end{array}$$

$$\begin{aligned} & (-57) \times (-19) + 57 \\ &= (-57) (+19+1) \\ &= -57(20) \\ &= -1140 \text{ Ans.} \end{aligned}$$

A certain freezing process requires that be lowered from  $40^{\circ}\text{C}$  at the rate of  $5^{\circ}\text{C}$  every hour. What will be the room temperature 10 hours after the process begins.

Solution :-

Temperature at the start =  $40^{\circ}\text{C}$

Temperature decreases at  $5^{\circ}\text{C}$  every hour

temp. decreases in 10 hours =  $5 \times 10$   
=  $50^{\circ}\text{C}$

After 10 hours room temp. =  $40 - 50$   
=  $-10^{\circ}\text{C}$

(7)

In a class test containing 10 questions, 5 marks are awarded for every correct answer and (-2) marks are awarded for every incorrect answer and 0 for questions not attempted

(1) Mohan gets four correct and six incorrect answers. What is his score.

Solution

$$\text{for correct answer} = 4 \times 5 \\ = 20$$

$$\text{for incorrect answers} = 6 \times (-2) \\ = -12$$

$$\text{Total score} = 20 - 12 \\ = 8$$

(1) Reshona gets five correct answers and five incorrect answers out of seven. What is her score

Solution

$$\text{for correct answer} = 5 \times 5 \\ = 25$$

$$\text{for incorrect answer} = 5 \times (-2) \\ = -10$$

$$\begin{aligned} \text{Total score} &= 25 - 10 \\ &= 15 \text{ Ans.} \end{aligned}$$

(iii) Heena gets two correct and five incorrect ~~and five incorrect answers~~ what is her score  
 answers out of seven questions she attempts. what is her score

Solutions:

$$\begin{aligned} \text{for correct answers} &= 2 \times 5 \\ &= 10 \end{aligned}$$

$$\begin{aligned} \text{for incorrect answers} &= 5 \times (-2) \\ &= -10 \end{aligned}$$

$$\begin{aligned} \text{Total score} &= 10 - 10 \\ &= 0 \end{aligned}$$

(8) A Cement Company earns a profit of ₹ 8 per bag of white cement sold and a loss of ₹ 5 per bag of grey cement sold.

(a) The company sells 3,000 bags of white cement and 5,000 bags of grey cement in a month. What is its profit or loss

Solution:

Profit on white cement bags =

$$8 \times 3000$$

$$= ₹ 24,000$$

Loss on grey cement =  $5000 \times 5$

$$= ₹ 25,000$$

$$\text{Loss} = 25,000 - 24,000$$

$$= ₹ 1,000 \text{ An.}$$

(b) What is the number of white cement bags it must sell to have neither profit nor loss, if the number of grey bags sold is 6,400 bags

Solution

Loss on selling grey cement of bags

$$= 6400 \times 5$$

Now he have to sold no of white

$$\text{Cement bags} = \frac{32000}{8}$$

8

$$= 4000 \text{ bags one.}$$

(9) Replace the blank with an integer to make it a true statement

$$(a) \quad (-3) \times \underline{-8} = 27 \quad (b) \quad 5 \times \underline{-7} = -35$$

$$(c) \quad \underline{7} \times (-8) = -56 \quad (d) \quad \underline{-11} \times (12) = -132$$