



Exercise 4D

L.H.S.

$$= (-13) \times [(-6) + (-19)]$$

$$= (-13) \times [-6 - 19]$$

$$= (-13) \times (-25)$$

$$= 325$$

R.H.S.

$$= (-13) \times (-6) + (-13) \times (-19)$$

$$= 78 + 247$$

$$= 325$$

\therefore L.H.S = R.H.S

Hence, verified.

Q5

Answer :

\times	-3	-2	-1	0	1	2	3
-3	9	6	3	0	-3	-6	-9
-2	6	4	2	0	-2	-4	-6
-1	3	2	1	0	-1	-2	-3
0	0	0	0	0	0	0	0
1	-3	-2	-1	0	1	2	3
2	-6	-4	-2	0	2	4	6
3	-9	-6	-3	0	3	6	9

Q6

Answer :

(i) The product of a positive integer and a negative integer is negative.

True

(ii) The product of two negative integers is a negative integer.

False

The product of two negative integers is always a positive integer.

(iii) The product of three negative integers is a negative integer.

True

(iv) Every integer when multiplied by (-1) gives its multiplicative inverse.

False

Every integer when multiplied by (1) gives its multiplicative inverse.

Q7

Answer :

$$(i) (-9) \times 6 + (-9) \times 4$$

Solution:

Using the distributive law:

$$(-9) \times 6 + (-9) \times 4$$

$$= (-9) \times (6+4)$$

$$= (-9) \times 10$$

$$= -90$$

$$(ii) 8 \times (-12) + 7 \times (-12)$$

Solution:

Using the distributive law:

$$8 \times (-12) + 7 \times (-12)$$

$$= (-12) \times (8+7)$$

$$= (-12) \times 15$$

$$= -180$$

$$(iii) 30 \times (-22) + 30 \times (14)$$

Solution:

Using the distributive law:

$$30 \times (-22) + 30 \times (14)$$

$$= 30 \times [(-22) + 14]$$

$$= 30 \times [-22 + 14]$$

$$= 30 \times (-8)$$

$$= -240$$

$$(iv) (-15) \times (-14) + (-15) \times (-6)$$

Solution:

$$(-15) \times (-14) + (-15) \times (-6)$$

Using the distributive law:

$$= (-15) \times [(-14) + (-6)]$$

$$= (-15) \times [-14 - 6]$$

$$= (-15) \times (-20)$$

$$= 300$$

$$(v) 43 \times (-33) + 43 \times (-17)$$

Solution:

$$43 \times (-33) + 43 \times (-17)$$

Using the distributive law:

$$= (43) \times [-(33) + (-17)]$$

$$= (43) \times [-33 - 17]$$

$$= 43 \times (-50)$$

$$= -2150$$

$$(vi) (-36) \times (72) + (-36) \times 28$$

Solution

$$(-36) \times (72) + (-36) \times 28$$

Using the distributive law:

$$= (-36) \times (72 + 28)$$

$$= (-36) \times 100$$

$$= -3600$$

$$(vii) (-27) \times (-16) + (-27) \times (-14)$$

Solution:

$$(-27) \times (-16) + (-27) \times (-14)$$

Using the distributive law:

$$= (-27) \times [(-16) + (-14)]$$

$$= (-27) \times [-16 - 14]$$

$$= (-27) \times [-30]$$

$$= 810$$

***** END *****