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 :

×	−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:

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

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

$= (-9) \times 10$

$= -90$

(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 **********