CLASS NOTES

Multiplication of Integers

1. Multiplication of a positive and a negative integer

Multiplying a positive integer and a negative integer, we multiply them as whole numbers and put a minus sign before the product.

Thus, product of a positive integer and a negative integer is a negative integer.

For any two positive integers a and b,
a × (-b) = (-a) × b = - (a × b)

Example: (-2) × 3 = -6

2. Multiplication of two negative integers

Multiplying two negative integers, we multiply them as whole numbers and put the positive sign before the product.

Thus, product of two negative integers is a positive integer.

For any two positive integers a and b,
(-a) × (-b) = a × b

Example: (-8) × (-2) = 16

3. Product of three or more negative integers

- Product of two negative integers is a positive integer.

- Product of three negative integers is a negative integer.
- Product of four negative integers is a positive integer.

> - **If the number of negative integers in a product is even, then the product is a positive integer.**
> - **If the number of negative integers in a product is odd, then the product is a negative integer.**

Example: (-4) × (-3) = 12

(-5) × (-3) × (-2) = -30

(-6) × (-4) × (-3) × (-2) = 144

Multiplication

Positive x Positive = Positive	5 x 3 = 15
Negative x Negative = Positive	(- 3) x (- 5) = 15
Negative x Positive = Negative	(- 3) x 5 = - 15
Positive x Negative = Negative	3 x (- 5) = - 15

· change double negatives to a positive