



CLASS NOTES

Division of Integers

Division of two positive Integers

When we divide a positive integer by another positive integer, we divide them as whole numbers and then put a positive sign.

$$\text{For any two integers a and b,} \\ (+a) \div (+b) = a \div b$$

Example: Let $a = 8$ and $b = 2$

$$8 \div 2 = 4$$

Division of two negative Integers

When we divide a negative integer by another negative integer, we divide them as whole numbers and then put a positive sign.

$$\text{For any two integers a and b,} \\ (-a) \div (-b) = a \div b$$

Example: Let $a = -8$ and $b = -2$

$$(-8) \div (-2) = 4$$

Division of a negative integer by a positive integer

When we divide a negative integer by a positive integer, we divide them as whole numbers and then put a minus sign before the quotient.



**For any two integers a and b,
 $(-a) \div b = -(a \div b)$**

Example: Let $a = -8$ and $b = 2$

$$(-8) \div 2 = -4$$

Division of a positive integer by a negative integer

When we divide a positive integer by a negative integer, we divide them as whole numbers and then put a minus sign before the quotient.

**For any two integers a and b,
 $a \div (-b) = -(a \div b)$**

Example: Let $a = 8$ and $b = -2$

$$8 \div (-2) = -4$$

Division	
Positive \div Positive = Positive	$15 \div 3 = 5$
Negative \div Negative = Positive	$(-15) \div (-3) = 5$
Negative \div Positive = Negative	$(-15) \div 3 = -5$
Positive \div Negative = Negative	$15 \div (-3) = -5$
• change double negatives to a positive	