

Rules for Integers

ADDITION

Same Signs: Add the absolute values and keep the common sign.

Different Signs: Subtract the smaller absolute value from the larger and keep the sign of the larger number.

Example	Process	Result
$(+5) + (+3)$	$5 + 3$	$+8$
$(-5) + (-3)$	$5 + 3$	-8
$(-7) + (+3)$	$7 - 3$	-4

SUBTRACTION

Rule: Change the subtraction sign to addition and change the sign of the second number (Keep-Change-Change).

Original	Transformation	Result
$(+5) - (+2)$	$(+5) + (-2)$	$+3$
$(+5) - (-2)$	$(+5) + (+2)$	$+7$
$(-5) - (-2)$	$(-5) + (+2)$	-3

MULTIPLICATION & DIVISION

Same Signs: The result is always **Positive (+)**.

Different Signs: The result is always **Negative (-)**.

Operation	Sign Rule	Example
$(+) \div (+)$ or $(-) \div (-)$	Positive	$-4 \div -3 = 12$
$(+) \div (-)$ or $(-) \div (+)$	Negative	$-4 \div 3 = -12$
$(+) \cdot (+)$ or $(-) \cdot (-)$	Positive	$-10 \cdot -2 = 5$
$(+) \cdot (-)$ or $(-) \cdot (+)$	Negative	$10 \cdot -2 = -5$