

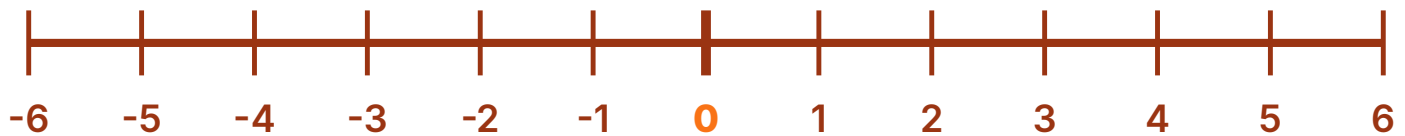
Integer Rules Summary

6th Grade

All four operations with negatives on one sheet, with a number line to check against.

← smaller

larger →



ADD & SUBTRACT — walk the line

Same signs → add and keep the sign. $-7 + (-4) = -11$

Different signs → subtract, keep the bigger one's sign.

$$-7 + 4 = -3 \quad 7 + (-4) = 3$$

Subtracting is adding the opposite: $5 - (-3) = 5 + 3 = 8$.

MULTIPLY & DIVIDE — count the minus signs

$$(+) \times (+) = +$$

$$6 \times 3 = 18$$

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

$$(-6) \times (-3) = 18$$

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

$$6 \times (-3) = -18$$

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

$$(-6) \times 3 = -18$$

Even number of minus signs → positive. Odd number → negative. Same for $\div$.

ABSOLUTE VALUE

$$|-8| = 8 \quad |8| = 8$$

distance from zero — never negative

-8 is further from zero than 3, but -8 is still the smaller number.

On the line, further left always means smaller.

TEMPERATURE TEST

If -5°C rises by 8° , it is 3°C . Everything about integers behaves like a thermometer.