

Multiplying and Dividing Integers

6th Grade

Count the minus signs. Even means positive, odd means negative.

Same signs give a positive answer. Different signs give a negative one. This holds for both multiplying and dividing.

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

$$6 \times 3$$

18

Both positive.

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

18

Both negative — the answer is positive.

$$(-6) \times 3$$

-18

One negative, so negative.

$$(-24) \div (-6)$$

4

Division follows exactly the same sign rule.

THE COMMON MISTAKE

$$\times (-7) + (-3) = 21$$

$$\checkmark (-7) + (-3) = -10$$

The 'two negatives make a positive' rule is for $\times$ and $\div$ only. It never applies to adding.

Count the negative signs. An even number of them gives a positive answer; an odd number gives a negative.