JULY 2025

M	T	W	T	F	S
	1	2	3	4	5
7	8	9	10	11	12
14	15	16	17	18	19
21	22	23	24	25	26
28	29	30	31		

- There's no natural, obvious physical meaning that immediately shows why $(-3)\times 4 = 4\times(-3)$.

The historical solution

- Mathematicians in the 16th–18th centuries ran into this exact problem (Cardano, Wallis, Euler). Instead of forcing an intuition, they asked:
- What properties must multiplication have to remain consistent with arithmetic?
- They took axioms that were already trusted for positive numbers (like commutativity, distributivity, associativity) and extended them to negatives.

IMPORTANT NOTES

- One could show from some basic assumptions that $(-3)\times 4 = -(3\times 4)$.