

AUGUST 2025

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JULY

27th Week • 186-179

2
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2
5

05

SATURDAY

Philosophical turning point

The meaning of multiplication shifted from concrete intuition \rightarrow abstract law.

Before: Multiplication = repeated addition

After: Multiplication = the unique operation on integers consistent with the ring laws. (distributivity, commutativity, identity).

This was a philosophical leap: mathematicians began accepting that some concepts don't have to come from "physical" pictures. They can exist because they are structurally necessary. Algebra moved from practical arithmetic to a general symbolic system in the Renaissance.

IMPORTANT NOTES: a) This is unsatisfactory. You are trying to impose your ideas from outside. Then it's not necessary that arithmetic is actually consistent.

It is during our darkest moments that we must focus to see the light. - Aristotle Onassis