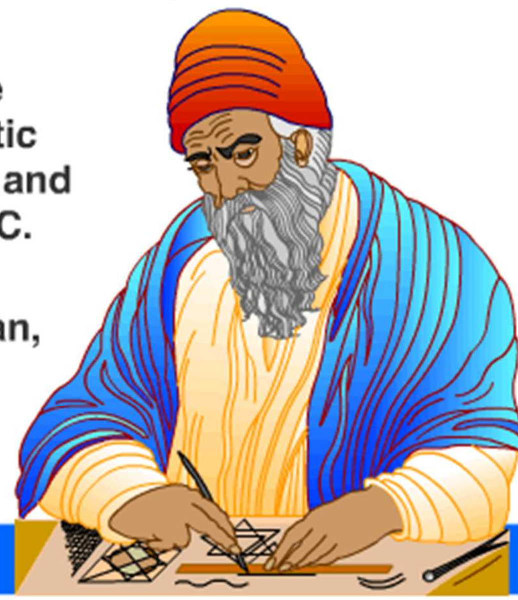
fundamental theorem of arithmetic

• every whole number greater than one is either a prime number or can be written as a product of prime numbers in a unique way.

fundamental theorem of arithmetic

Any integer greater than one is either a prime number itself, or can be written as a unique product of prime numbers.



The statement and proof of the fundamental theorem of arithmetic were contained in propositions 30 and 32 of Euclid's *Elements* in 300 BC.

Euclid was a Greek mathematician, often referred to as the "Father of Geometry".

examples

1	is	neither prime nor composite	11	=	a prime number
2	=	a prime number	12	=	2 x 2 x 3
3	=	a prime number	13	=	a prime number
4	=	2 x 2	14	=	2 x 7
5	=	a prime number	15	=	3 x 5
6	=	2 x 3	16	=	2 x 2 x 2 x 2
7	=	a prime number	17	=	a prime number
8	=	2 x 2 x 2	18	=	2 x 3 x 3
9	=	3 x 3	19	=	a prime number
10	=	2 x 5	20	=	2 x 2 x 5