

MathFLIX CHALLENGE

Roman and Hindu-Arabic Numerals

Inspired by *The Number Devil: A Mathematical Adventure* by Hans Enzensberger, Susanne Berner, and Michael Heim (May, 2000)

The Number Devil tells Robert that zero was the last number to be discovered. The ancient Romans used a numeration system that had no zero. In fact, they had no numerals. They used letters to express quantity. The system we use today is called Hindu-Arabic and uses 10 unique symbols, including zero, to express quantity.

Roman Symbols			
I = 1	X = 10	C = 100	M = 1,000
V = 5	L = 50	D = 500	

Use the table above to count in both numeration systems. In the Roman system, the same letter can't be used more than three times to form a number. Instead, you must place a symbol to the left to "take away" the needed amount. This applies to any amount which would include 4 and 9 as digits.

Roman	Hindu -Arabic	Roman	Hindu -Arabic	Roman	Hindu -Arabic	Roman	Hindu -Arabic	Roman	Hindu -Arabic	Roman	Hindu -Arabic
I		XI		XXI		XXXI			41	LI	
II		XII							42	LII	
III		XIII							43	LIII	
IV	4		14		24		34		44		54
V		XV							45		
VI		XVI							46		
VII		XVII							47		
VIII		XVIII							48		
IX	9		19		29		39		49		59
X		XX						L	50		

Roman	Hindu -Arabic
MMDCCCLXVII	
MDCCXXV	

Roman	Hindu -Arabic
CDXLIV	
CMXCIX	