Definition:	When $a$ and $b$ are integers	and $a$ is	nonzero, $a$	${\bf divides}$	b means t	there is an	integer	c such
that $b = ac$ .	Symbolically, $F((a,b)) =$		and is	s a predic	ate over the	he domain		Other
(synonymous	s) ways to say that $F((a,b)$	) is true:						

a is a **factor** of b a is a **divisor** of b b is a **multiple** of a a|b

When a is a positive integer and b is any integer, a|b exactly when  $b \mod a = 0$  When a is a positive integer and b is any integer, a|b exactly  $b = a \cdot (b \operatorname{\mathbf{div}} a)$