**Definition**: When a and b are integers and a is nonzero, a divides b means there is an integer c such that b=ac. Symbolically, F((a,b))= and is a predicate over the domain \_\_\_\_\_ Other (synonymous) 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  $b = a \cdot (b \operatorname{\mathbf{div}} a)$