

Additional Definitions for Proofs

Definition of Divisibility: An integer n is divisible by

Examples of Divisibility:

The Division Theorem: For all integers a and b (where $b > 0$),

Examples of the Division Theorem:

The Division Theorem written in Mod notation Examples

Proof Examples using the definitions of divisibility:

1. If x and y are divisible by 4, then their product is divisible by 16.

2. Every number not divisible by 3 has a square that can be written in the form $3k + 1$ for some integer k .