Name: _____ Date: _____

Math 2710 — Worksheet

2026-10-13

Show your work. Write your final answer clearly.

1. Suppose x and y are integers. Prove that if x is even then xy is even. Be sure to state the definition of an even integer.

2. Complete the following definition: Suppose a and b are integers and a is not zero. Then $a \mid b$ if:

3. Prove that if a, b, c are integers, and a and b are nonzero, then if $a \mid b$ and $b \mid c$ then $a \mid c$.