

MATH 2010-2 FALL 2024 GRADED HOMEWORK #1

Write clearly. Both questions carry equal weight.

For each proposition, write a formal proof.

(1) Let a, b , and c be integers. If $a \nmid bc$, then $a \nmid b$ and $a \nmid c$.

(2) If x and y are real numbers, then $x^2 + 9y^2 \geq 6xy$.