

MATH 3200 Quiz 2 Study Guide

Refer to Taylor Chapter 2 for the relevant definitions/descriptions. We can also discuss any questions before or during class, before the day of the quiz.

1. Define the Direct Proof strategy for proving $A \implies B$.
2. Define the Contrapositive Proof strategy for proving $A \implies B$.
3. Define the Contradiction Proof strategy for proving $A \implies B$.
4. Define n is an even integer.
5. Define n is an odd integer.
6. Let a and b be integers, where $a \neq 0$. Define a divides b .

answer: a divides b , written $a|b$, if $b = ak$ for some integer k .

7. State the 5 rules for inequalities.

answer:

Rules for inequalities.
Assume a , b , and c are real numbers.
(Rule 1) If $a > b$ and $b > c$, then $a > c$.
(Rule 2) If $a > b$ then $a + c > b + c$.
(Rule 3) If $a > b$ and $c > 0$, then $ac > bc$.
(Rule 4) If $a > b$ and $c < 0$, then $ac < bc$.
(Rule 5) For every real number a , exactly one of the following is true:
$a > 0$ $a = 0$ $a < 0$