

NAME:

Math 201B Fall 2007 Quiz #1

1. Use set-builder notation to specify the set of all real numbers between 9 and 10.

2. Use English to describe the set $\{x \in \mathbb{Z} \mid -3 \leq x \leq 3\}$.

3. Use the roster method to describe the set $\{x \in \mathbb{Z} \mid -3 \leq x \leq 3\}$.

4. Each of the following sentences is either a statement, or a predicate with variables from the set \mathbb{R} of all real numbers.
- If the sentence is a statement, determine whether it is true or false.
 - If the sentence is a predicate, determine its truth set.

4a. $\forall x \in \mathbb{R}, 1 \cdot x = 0 + x$.

4b. $\forall x \in \mathbb{R}, x^2 \geq x$.

4c. $x^2 \geq x$.