Math 301 Quiz #1a Name_____

1. Using the definition of odd, clearly explain why 17 is odd.

2. Let A be the statement "6 is even" and let B be the statement "5 is composite". For each of the following, write TRUE or FALSE (**not** T or F), as appropriate.

   (a) B.

   (b) A and B.

   (c) A or B.

   (d) If A then B.

3. Prove: If x is an integer and $10 \mid x$ then $5 \mid x$.

Math 301 Quiz #1b Name_____

1. Using the definition of odd, clearly explain why 13 is odd.

2. Let A be the statement "6 is even" and let B be the statement "5 is composite". For each of the following, write TRUE or FALSE (**not** T or F), as appropriate.

   (a) B.

   (b) A or B.

   (c) A and B.

   (d) If A then B.

3. Prove: If x is an integer and $14 \mid x$ then $7 \mid x$.