Mathematics 174

Quiz # 5 Name: Key

You must show your work to get full credit.

1. Define n is an ***even number*** (see page 111 of the text).

n is even $\Leftrightarrow$ $n = 2k$ for some integer k.

(I will take $n = 2($integer$)$)

2. Define n is an ***odd number*** (see page 111 of the text).

n is odd $\Leftrightarrow$ $n = 2k+1$ for some integer k.

(I will take $n = 2($integer$) + 1$

3. Define n is ***prime*** (see page 112 of the text).

n is prime $\Leftrightarrow$ $n > 1$ and if n factors as $n = rs$ with $r, s \geq 1$ then $r = n$ or $s = n$.

4. Define n is ***composite*** (see page 112 of the text).

n is composite $\Leftrightarrow$ $n > 1$ and for some integers $r, s > 1$ n factors as $n = rs$.

5. Define n is a ***perfect square*** (see page 125 of the text). .

n is a perfect square $\Leftrightarrow$ $n = k^2$ for some integer k