Math 319(01) Solution
Quiz 1 5 February 2002

1. Complete the definition: Let a and b be integers, with $a \neq 0$. We say that b *is divisible by* a if ...

   ... there exists an integer x such that $b = ax$.

2. Let a and b be integers, with $a > 0$. What does the division algorithm say about a and b?

   The division algorithm says that there exist uniquely-determined integers q and r such that $b = aq + r$ and $0 \leq r < a$. Furthermore, if $a \not| b$, then $0 < r < a$.