

Math 2013 - Introduction to Discrete Mathematics

Quiz #8 - 2005.10.07

Solutions

1. Let $a = 721$ and $b = 23$. Divide a by b and write your answer in terms of the division algorithm.

$$721 = 23 \cdot 31 + 8$$

2. Determine if the number 2467 is prime.

First note $\lfloor \sqrt{2467} \rfloor = 49$. Next we need to find all prime numbers less than 49. They are given as follows:

$$\{2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47\}$$

After dividing 2467 by each of the above numbers, we see that 2467 is now prime.