Math for developers homework

Solution to Problem 1:

The 24th prime number is 89

The 101st prime number is 547

The 251th prime number is 1597

Solution to Problem 2:

89 – yes; position: 12th in the Fibonacci sequence

547 – no;

1597 – yes; position: 18th in the Fibonacci sequence

Solution to Problem 3:

100! = 9,3326215443944152681699238856267e+157

171! = 1,2410180702176678234248405241031e+309

250! = 3,2328562609091077323208145520244e+492

Solution to Problem 4:

1. Catheti: 3 and 4 – hypotenuse = 5
2. Catheti: 10 and 12 – hypotenuse = 15,6205
3. Catheti 100 and 250 – hypotenuse = 269,2582

Solution to Problem 5:

1234d – 10011010010b –0x4D2

1100101b – 101d – 0x65

ABC – 2748d – 101010111100b

Solution to Problem 6:

The LCM of 1234 and 3456 is 2132352