

Homework 6: Greatest Common Divisor

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Problem 1.

Write down the solution for L6.4.

Problem 2.

It is known that

$$35! = 10333147966386144929 * 66651337523200000000$$

where $*$ is some digit. What digit is it?

Problem 3.

A positive integer n has the property that $n^2 + 1$ is divisible by 6. Find $\gcd(n, 36)$ with a proof.