# Math Exam – PreIB 3.AB
## GCD & CRT

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March 11, 2024

1. Find the *greatest common divisor* of 3087 and 637 using the *Euclidean algorithm*. Write down your calculations.

2. Determine *whether the following system of congruences has a solution* and, if it does, find *the smallest solution*. Write down your calculations.

$$x \equiv 0 \quad (\text{mod } 13)$$
$$x \equiv 3 \quad (\text{mod } 9)$$
$$x \equiv 1 \quad (\text{mod } 14).$$