Math Exam – PreIB 3.AB
GCD & CRT

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1. Find the *greatest common divisor* of 3025 and 17765 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.

$$x \equiv 4 \pmod 7$$
$$x \equiv 6 \pmod 9$$
$$x \equiv 1 \pmod{13}.$$