### 2.9 Metapuzzle: Residues

In this round, every answer is a number. Taking each of these numbers mod the first 5 primes $(2,3,5,7,11)$ always yields either a 0 or a 1 ; this gives a 5 -bit string which can be read as a binary number to determine a letter (with $\mathrm{A}=1$, $\mathrm{B}=2$, etc.).

The answers and their residues $\bmod 2,3,5,7$, and 11 are:

- $616 \rightarrow 01100 \rightarrow \mathrm{~L}$
- $210 \rightarrow 00001 \rightarrow \mathrm{~A}$
- $441 \rightarrow 10101 \rightarrow \mathrm{U}$
- $946 \rightarrow 01110 \rightarrow \mathrm{~N}$
- $540 \rightarrow 00011 \rightarrow \mathrm{C}$
- $1540 \rightarrow 01000 \rightarrow \mathrm{H}$
- $1596 \rightarrow 00101 \rightarrow \mathrm{E}$
- $1485 \rightarrow 10010 \rightarrow \mathrm{R}$

Reading these letters yields the answer: LAUNCHER

