

Q1-2

1

$$N = (\text{prime})^2 + (\text{prime} \times \text{even})$$

A prime number multiplied by an even number, will always be an even number

A prime number squared, can be either odd or even e.g.  $3^2=9$  or  $2^2=4$

Therefore we have an odd or even number, plus an even number

This can result in either an odd or even number

The top-left option, "could be even or odd"

2

The answers must be multiples of all of the numbers given.

Consider the rules of the multiples of each value.

All multiples of 5 end in either 0 or 5, so the answer must be either 0 or 5.  
All multiples of 2 end in 0, 2, 4, 6, or 8 so it is not possible for the answer to be 5.

Therefore the answer must be 0.

0