

Here are some challenges involving consecutive numbers and multiples.

Can you find **three consecutive numbers** where the first is a multiple of 2, the second is a multiple of 3 and the third is a multiple of 4?

Can you find several examples?

What do you notice?

Can you explain your findings?

What if the first is a multiple of 3, the second is a multiple of 4, and the third is a multiple of 5?

What if the first is a multiple of 4, the second is a multiple of 5, and the third is a multiple of 6?

Is there a way to find sets of **four consecutive numbers** which are multiples of 2, 3, 4, and 5 (in this order)?

Or **five consecutive numbers** which are multiples of 2, 3, 4, 5, and 6 (in this order)?

Can you use what you have discovered to help you find a few sets of ten consecutive numbers in which:

- the first is a multiple of 1
- the second is a multiple of 2
- the third is a multiple of 3
- the fourth is a multiple of 4
- the fifth is a multiple of 5
- the sixth is a multiple of 6
- the seventh is a multiple of 7
- the eighth is a multiple of 8
- the ninth is a multiple of 9
- the tenth is a multiple of 10?