

Choose two digits at random (0 to 9). You could choose them using dice or spinners, or let the computer choose them for you.

Your task is to find the **largest possible three-digit number** which uses the two random digits, and one of your own, to make a multiple of 2.

Can you describe a strategy that ensures your first 'guess' is always correct?

You can make the game harder by changing:

- the multiple
- the number of digits in your target number
- the number of random digits you use.

Can you describe your strategies that ensure your first 'guess' is always correct for a variety of settings?

Something else to think about:

What is the largest possible five-digit number divisible by 12 that you can make from the digits 1, 3, 4, 5 and one more digit?

Many people think the largest possible five-digit number is 53184, but there are larger ones...