# MEI <br> Mathematics <br> Education Innovation 

## Race to 30



How can you always win this game?

\section*{| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | + | $=$ |
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Play in pairs. Each player starts with zero.
Take it in turns to choose a number to add to your total.
Each number can only be used once.
The winner is the first personto make the display show 30 . If you go over 30 , you lose!
You can always win at Race to 30 if:

## Aim of the game

To use addition with small numbers to make the total of 30 and no more!

## How to play (using a calculator)

You need to play this game with someone and you will need a calculator each.
Take it in turns to choose a number. Each number can only be used once.
When you choose your second number, add it to the first
Keep the total on your calculator and keep adding the next number
To win you need to get your total to exactly 30
If you go over 30, you lose!

## Challenge

Is there a strategy so that you can always win?
Is it best to go first or second?
Can you come up with a winning strategy and explain it here?
You can always win at Race to 30 if:

## Top Tips

Any calculator will do for this activity as you are only adding.
You might need to play the game a few times to work out your strategy.
Take turns to be player 1 and player 2.

