Got it now

Generalising from games and investigations

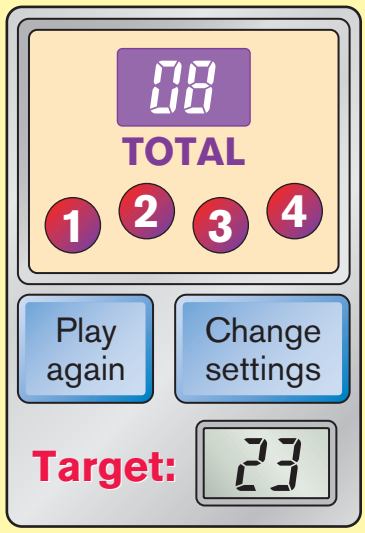
The game ‘Got it’ is a version of a well-known game called ‘Nim’.

It is an adding game for two. You play against the computer or against a friend.

Start with a target of 23. Set the range of available numbers from 1 to 4.

Players take turns to add a whole number from 1 to 4 to the running total.

The player who hits the target of 23 wins the game.



Play the game several times. Can you always win?

Can you find a winning strategy?

Does your strategy depend on whether or not you go first?

Change the game by choosing a new target.

Test the strategy you found earlier. Does it need adapting?

Can you work out a winning strategy for any target?

Is it best to start the game? Always?

Change the game again, returning to a target of 23 but using a different range of numbers this time.

Test the strategies you found earlier. Do they need adapting?

Can you work out a winning strategy for any range of numbers?

Is it best to start the game? Always?

Can you work out a winning strategy for any target and any range of numbers?