

## Dice connect-four

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### Mental maths and probability investigation

#### Task:

Choose numbers to go into the game board below so that you have the best chance of winning “dice connect four”. The idea is to get any four squares in a row (up, down or diagonal) before your classmates do. To play the game two dice will be rolled. You may perform any operation that you like on the dice (+-x÷) and cross those answers off your board. Each number may only be used once.

#### Key Questions:

- What number combinations are possible?
- What answers are therefore possible?
- Which answers appear the most often and should therefore be part of your game board?
- Why? Prove it!
