

Imagine you have two discs. Each disc is red on one side and green on the other.

You flip the discs, and when they land, you win if both discs show the same colour.

Approximately how often do you think you would win if you completed 10 throws?

Make a prediction and try to justify it. You could try it out by flipping two coins.

Approximately how often do you think you would win if you completed 100 throws?

Make a prediction and try to justify it. You could try it out by using the interactivity at <http://nrich.maths.org/4304> .

Now imagine you flip three discs. **You win if all the discs show the same colour.**

Can you predict what the probability of winning will be this time?

Do the same with 4 and 5 discs.

Do you notice a pattern in your results? Can you explain it?

Can you explain how to find the probability of winning for n discs?