

## Square tens

*Children find pairs of dominoes such that the total number of spots is 10.*

## Skills practised:

- Number bonds to 10
- Adding single-digit numbers

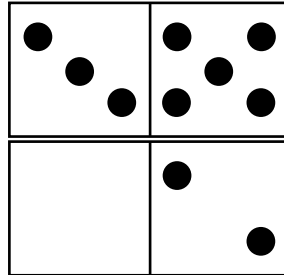
*Conjecture: It is possible to find ten pairs of dominoes which have a total of 10 spots.*

### What to do:

*Children work individually or in pairs.*

*Children working on this investigation will need a full set of dominoes.*

1. Ask children to find two dominoes such that the total number of spots is 10 and arrange them into a square.



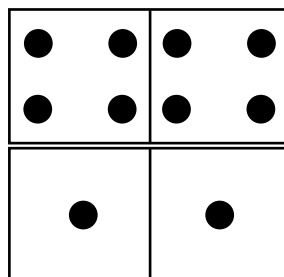
2. Now challenge them to make as many square tens as they can!  
They keep each new square they make.

Can they make ten square 10s?

Which dominoes can't be used? Why?

When they pick up a domino, how do they know what domino to look for?

How many square tens can they make which only use doubles? For example:



**CHALLENGE:** Ask children to make square 12s. It is possible to make fourteen square 12s, which uses EVERY domino in the set!

### Aims:

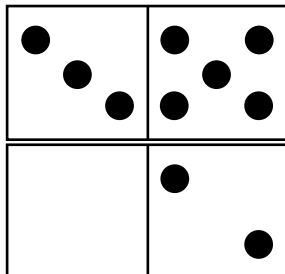
- To understand that there are many different solutions to some mathematical questions
- To find solutions using reasoning
- To begin to understand 'how many more to make...?'

### Minimum number of calculations expected

10

## Square tens

1. Find two dominoes where the total number of spots is 10 and arrange them into a square.

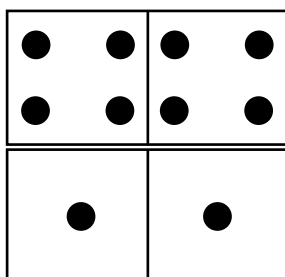


2. Make as many square tens as you can!  
Keep each new square you make.

Can you make ten square 10s?  
Which dominoes can't be used? Why?

When you pick up one domino, how do you know what domino to look for next?

How many square tens can you make which only use doubles?  
For example:



### Challenge

Make square 12s. Can you make fourteen square 12s, which use EVERY domino in the set!