

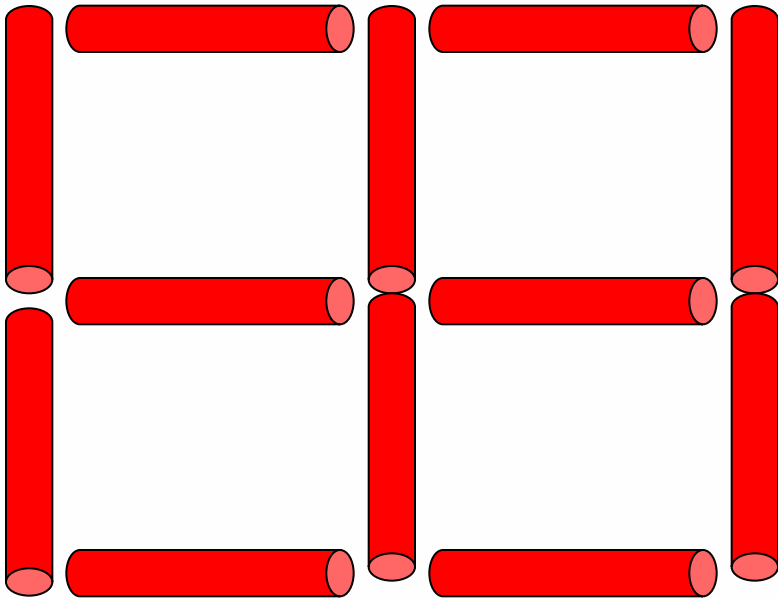
**Mathematical challenges
for able pupils**

**Year 4 B Securing number facts,
understanding shape**



Straw squares

There are 12 straws in this pattern of 5 squares.



Take **20** straws.
Arrange them to make
as many squares as you
can.

**Don't bend or break
the straws!**

**How many squares
did you make?**



Learning Objective:

- Solve mathematical problems or puzzles.
- Visualise 2-D shapes.

Extension to Straw squares

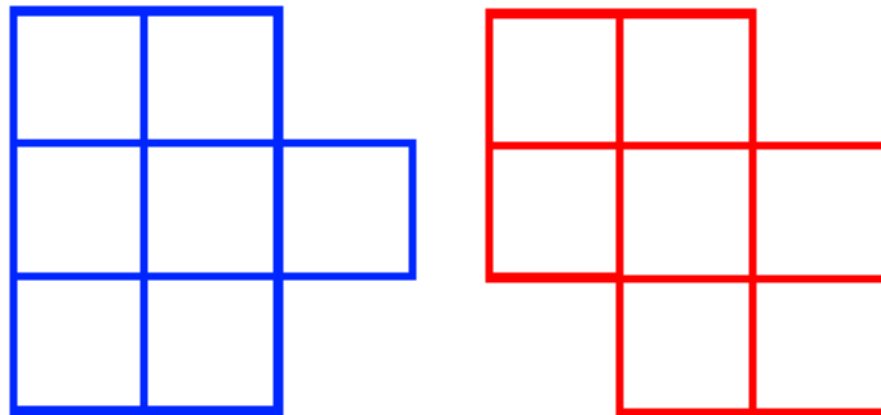
How many squares can you make
using 40 straws?



Solution to Staw Squares

You can make a maximum of **9 squares** with 20 straws.

Here are two ways of doing it.



With 40 straws, you can make a maximum of 30 squares.



Learning Objective:

- Solve mathematical problems or puzzles.
- Visualise 2-D shapes.

The end, thank you!



References and additional resources.

The questions from this PowerPoint came from:

Mathematical challenges for able pupils in Key Stages 1 and 2

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Thank You

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These Mental Maths challenges can be found as a PDF file at :

http://www.edu.dudley.gov.uk/numeracy/problem_solving/Mathematical%20Challenges%20Book.pdf

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These units were organised using advice given at:

http://www.edu.dudley.gov.uk/numeracy/problem_solving/Challenges%20and%20Blocks.doc

