15.1.21 Investigation

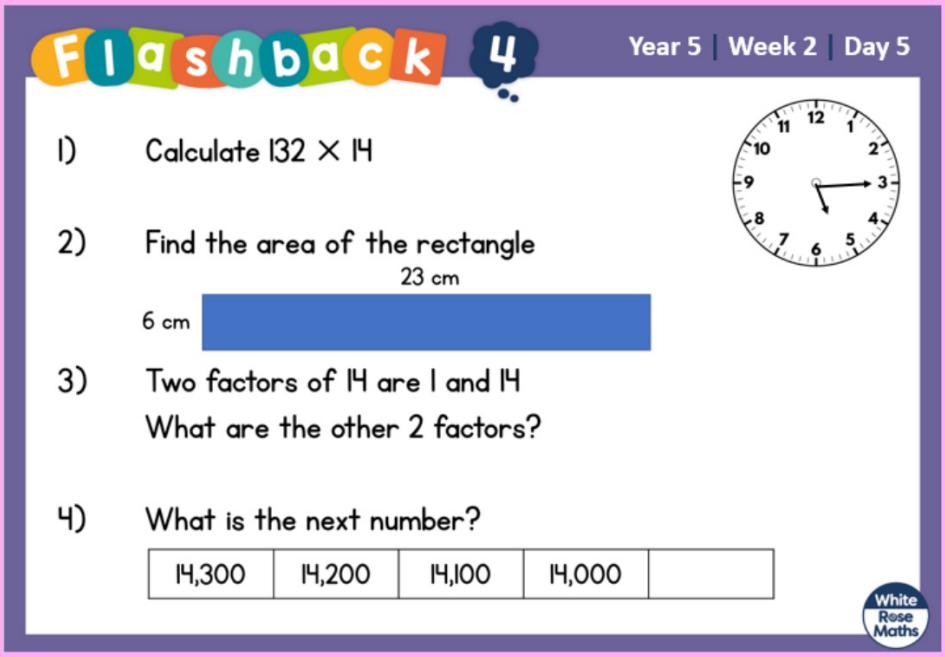
Learning Objective:
We are learning to solve an investigation systematically.

I will be successful if:

- I can be systematic in my working out.
- I can use sentence stems to help explain my thoughts.

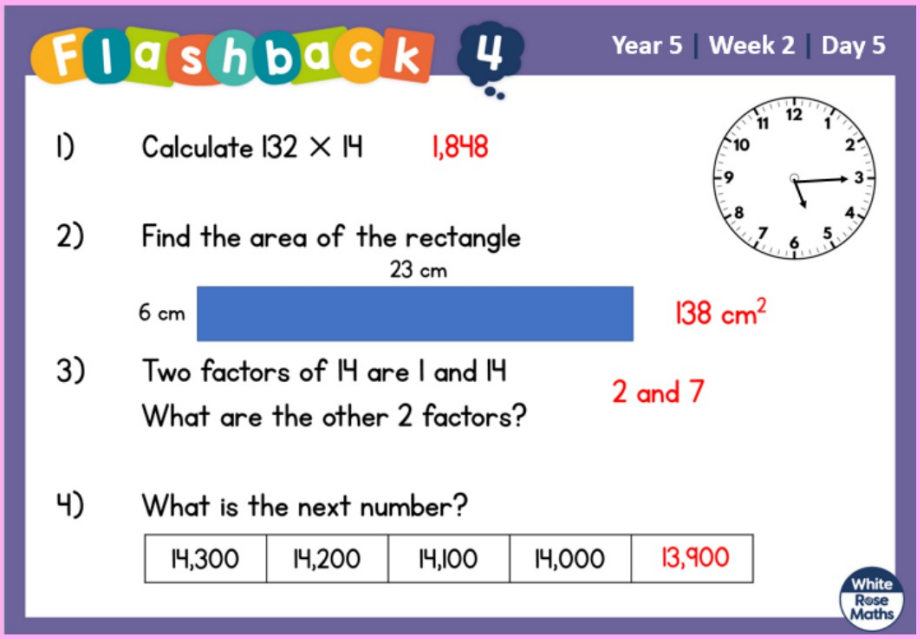
Sentence stems

I already know that... so...
I started by...
I checked by...
I decided to...because...
I noticed that...
I wondered why...
The pattern I noticed was...
I used the inverse of...
I used the fact that...
I was systematic because I...



Challenge

5) 85g x 100 = ___kg
6) 1.8km +450m = ___km ___m
7) 50% of 1.9kg = ___g
8) 1.5l - ? = 600ml

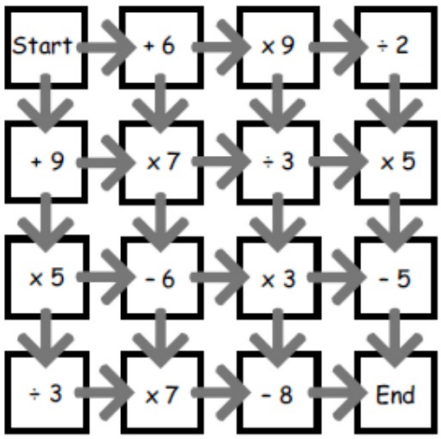


Challenge

5) 85g x 100 = 8.5kg
6) 1.8km +450m = 2km 250m
7) 50% of 1.9kg =950g
8) 1.5l - 900ml = 600ml

Maze

Start with zero.
Find a route from 'Start' to 'End' that totals 100 exactly.



Which route has the highest total?
Which has the lowest total?

Now try some different starting numbers.

Answers

62 Maze

There are two routes that total 100 exactly:

+ 6 x 7 - 6 x 3 - 8 = 100

+ 9 x 7 ÷ 3 x 5 - 5 = 100

The route giving the highest total is:

+ 9 x 7 - 6 x 7 - 8 = 391

The route giving the lowest total is:

+ 6 x 7 ÷ 3 x 3 - 8 = 34