

4 INVESTIGATIONS

1 Repeat it



The number 468 468 can be divided by 13.

The number 234 234 can also be divided by 13.

Can these numbers be divided by 13?

- a 286 286 b 427 427 c 684 684 d 792 792
- e Write some more 6-digit numbers that are made by repeating the first three digits.
- f Are all of these divisible by 13?

2 Backwards

21 written backwards is 12.

$$21 + 12 = 33$$

14 written backwards is 41.

$$14 + 41 = 44$$



- a Investigate which other 2-digit numbers give a repeating number when written backwards and then added to the original number.
- b How can you tell which 2-digit numbers will make repeating numbers?
- c Are there any 3-digit numbers that will make repeating numbers? Explain.

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