

Multiple madness

Children arrange digit cards to form multiples of 2, 5 and 10.

Skills practised:

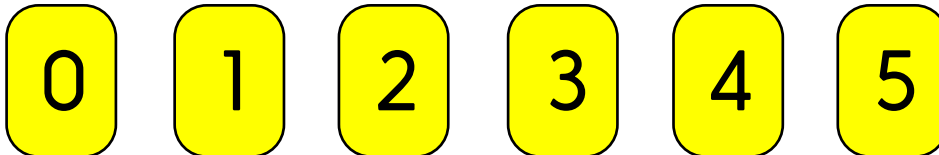
- Recognising multiples of 2, 5 and 10

Conjecture: *It is possible to find more than one way of using the digits 0 to 5 to form three numbers such that one is a multiple of 2, one is a multiple of 5 and the third is a multiple of 10.*

What to do:

Children work individually or in pairs.

1. For this challenge you will need a set of 0 to 5 digit cards.



Use these six cards to make three 2-digit numbers. One must be a multiple of 2, one a multiple of 5 and the third a multiple of 10. You can only use each card once.

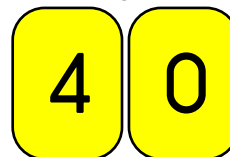
A multiple of 2



A multiple of 5



A multiple of 10



2. Now see if you can find a different way to use the cards to make a multiple of 2, a multiple of 5 and a multiple of 10.
3. How many different ways can you find?
4. Which digit card can only be used in one place? Which cards can be used in the '1s' place in the multiples of 2?

Could you use the digit cards 0, 1, 2, 4, 6 and 8 to make these three special types of numbers, using each card only once? Why not? Can you think of another set of 6 digits cards which would make it possible?

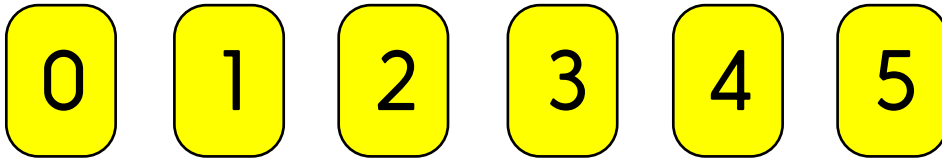
Aims:

- To find different possibilities
- To consolidate recognition of multiples of 2, 5 and 10

Minimum number of calculations expected

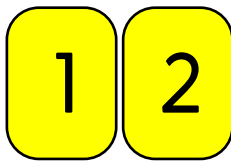
N/A

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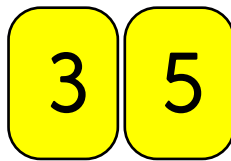


1. Use these six cards to make three 2-digit numbers. One must be a multiple of 2, one a multiple of 5 and the third a multiple of 10. You can only use each card once.

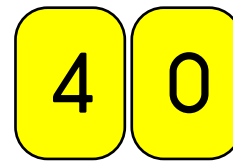
A multiple of 2



A multiple of 5



A multiple of 10



2. Can you find a different way to use the cards to make a multiple of 2, a multiple of 5 and a multiple of 10?
3. How many different ways can you find?
4. Which digit card can only be used in one place? Which cards can be used in the '1s' place in the multiples of 2?

Could you use the digit cards 0, 1, 2, 4, 6 and 8 to make these three special types of numbers, using each card only once? Why not? Can you think of another set of six cards which would make this possible?