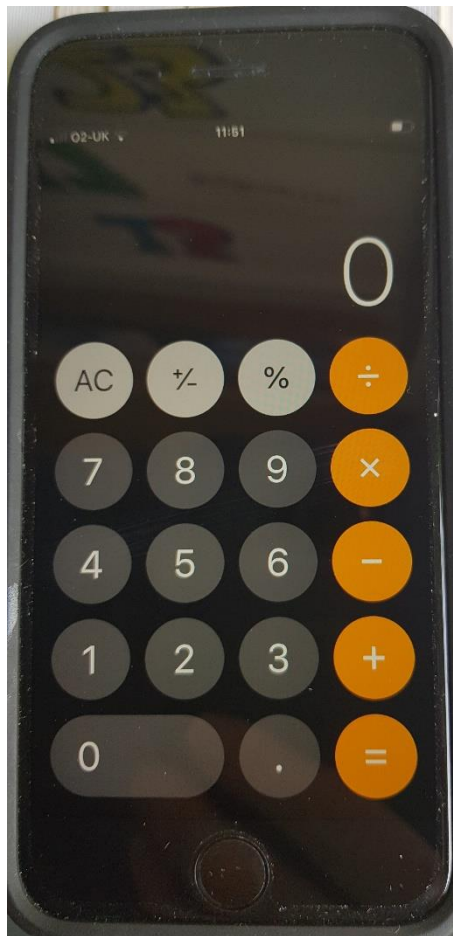


Calculator Week Revisited – Exploring Number Y5/6

For this week you will need:

- A calculator. There are calculators on phones, laptops and other devices. Here's a link to one: <https://www.online-calculator.com/>
- Paper and pencil to keep track when using the calculator and solving the problems set for each day.



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Calculator Week Revisited – Exploring Number Y5/6

Day 1

- Press 80 then $- 10 = =$
- Keep pressing $=$ until you reach 0.
- What do you notice?
- What do you notice if you continue pressing $=$ past 0?
- Write down the numbers in this sequence
- Press 57 then $- 10 = =$
- What do you notice?
- What do you notice if you continue pressing $=$ past 0?
- Write down the numbers in this sequence
- Make the calculator count back in 10s from a number of your choice, for example 83 or 64
- What do you notice happens when you pass 0? Why does this happen?
- Now choose another starting number and another and another...and count back in 10s past 0
- What do you notice each time?

Notes for adults working with groups of children

- Drawing a number line will support children to see what is happening when counting backwards towards zero and then past zero
- Help the children to notice that only starting numbers which are multiples of 10 result in a pattern that includes 0 and continues with numbers that are multiples of 10 with a 0 as the ones digit.
- Help the children to notice a pattern change in the ones digit as they cross zero with other starting numbers that are not multiples of 10. Looking at the numbers either side of 0 on a number line can support understanding of why this happens.

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Calculator Week Revisited – Exploring Number Y5/6

Day 2

- Press 50 then $- 5 = =$
- Keep pressing $=$
- If you keep going, will the calculator show zero? Why? What happens when you go past 0?
- Write down the numbers in this sequence
- What do you notice?
- Make the calculator count back in 5s from 99
- Write down the numbers in this sequence
- If you keep going, will the calculator show zero? Why? What happens when you go past 0?
- What do you notice?
- Make the calculator count backwards in 5s from a number of your choice e.g. 34
- If you keep going, will the calculator show zero? Why? What happens when you go past 0?
- Now choose another starting number and another and another...
- What do you notice each time?

Notes for adults working with groups of children

- Drawing a number line will support children to see what is happening when counting backwards towards zero and then past zero
- Help the children to notice that only starting numbers which are multiples of 5 result in a pattern that includes 0 and continues with numbers that are multiples of 5 with 0 or 5 as the ones digit.
- Help the children to notice a pattern change in the ones digit as they cross zero with other starting numbers that are not multiples of 5. Looking at the numbers either side of 0 on a number line can support understanding of why this happens.

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Calculator Week Revisited – Exploring Number Y5/6

Day 3

- Press 1 then $\times 2 = =$
- Keep pressing $=$. What do you notice?
- Write down the numbers in this sequence.
- Imagine you have agreed to be paid to do the washing up at home for 2 weeks.
- Do you think you would you rather be:
 - Paid 75p each day or
 - Paid 1p on day 1, 2p on day 2, 4p on day 3, etc. with the payment doubling each day until day 14? Why?
- Work out the difference between each of these payments. Are you surprised?

Notes for adults working with groups of children

- Children may need to be supported to keep track of the results as they work on the problem
- The two different patterns could be represented in a graph to compare.

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Calculator Week Revisited – Exploring Number Y5/6

Day 4

- Decide when you need to use a calculator and when you don't need to use a calculator help you decide about the following 'Would you rather...?' questions. Keep track of your thinking and what you do by recording on paper.
 - Would you rather spend £14.27 per ticket for 4 tickets to a theme park or pay for a special 'group of four' ticket costing £58? Why?
 - Would you rather pay £23.99 per month for 7 months for a new tablet or pay £21.15 for 8 months? Why?
 - Would you rather have 17 packets of 13 biscuits or 28 packets of 8 biscuits?
- What do you notice about these 'Would you rather' problems?
- Now write a 'Would you rather' question of your own:
 - Would you rather or

Notes for adults working with groups of children

- Children may need to be supported to keep track of their thinking as they work on these problems.
- Encourage the children to explain their decisions and to say when they need to work out exact amounts and when they don't; for example for the first one they might be able to answer it and justify their thinking without working out $£14.27 \times 4$.

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Calculator Week Revisited – Exploring Number Y5/6

Day 5

- Write down the number of:
 - Seconds in a minute
 - Minutes in an hour
 - Hours in a day
 - Days in a year
- Work out the number of minutes in a day.
- Do you think you have been alive for more than one million minutes?
Work out how many minutes you have been alive.
- Who do you know who is closest in age to one million minutes?
- Make up your own question related to time.

Notes for adults working with groups of children

- Children may need to be supported to keep track of the results as they work on the problem
- Encourage the children to pose questions for other children to explore. These could develop from time to other measures such as: How many long is a blue whale in mm?

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