

Maths - Year 3

Calculating 9: Patterns of similar adding and subtracting calculations

Key Vocabulary

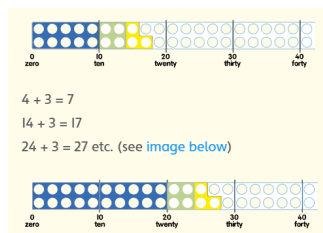
equivalent	Different ways of representing the same value.
Double	Multiply a number or amount by 2.
Halve	Dividing into 2 equal parts.
commutative	When adding or multiplying the answer will be the same no matter the order of the numbers.
associative	When adding or multiplying the answer will be the same no matter how the numbers are grouped.
adjust	To make a small change.
Complements to 10 or 100	Numbers that are added together to total 10 or 100.

Mathematical Skills

- To develop understanding of equivalence.
- Connect adding and subtracting multiples of 10 and 100 with coin values.
- To understand and use compensating as an aid to calculating.
- Use known facts and place value to solve new problems.
- See and continue a pattern of similar calculations.
- Complete empty box problems.

Mathematical Methods

- Explore patterns when adding 10.

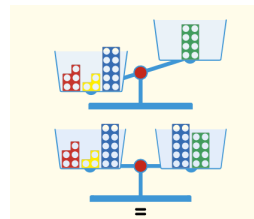


$$7 - 4 = 3 \quad 7 - 3 = 4$$

$$17 - 4 = 13 \quad 17 - 3 = 14$$

$$27 - 4 = 23 \quad 27 - 3 = 24$$

- Explore equivalence.

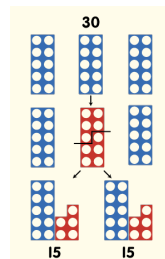


$$5 + 3 = 8 \quad 3 + 5 = 8$$

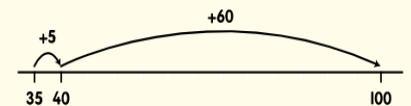
$$15 + 3 = 18 \quad 13 + 5 = 18$$

$$25 + 3 = 28 \quad 23 + 5 = 28$$

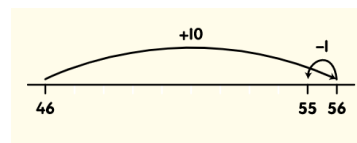
- Explore the relationship between halving and doubling.



- Explore complements to 100.



- Adjust numbers to make calculations easier.



$$46 + 9 = 55$$

Can you..?

- Starting with $58 - 53 = 5$, Can you write a pattern of similar subtracting calculations that finish with $8 - 3 = 5$?

- What doubling and halving questions can you write to make the answer a) 10 b) 24?

- Adjust these calculations so you can solve them more easily:

a) $56 + 29 =$ b) $96 - 49 =$ c) $63 + 39 =$ d) $269 - 26 =$

- A school hall seats 165 people. 187 people want to go to a concert there. How many can't have seats?

- Find as many ways as you can to complete this problem. (No doubles allowed) + = 28