

Numbers Week – Calculation Y5/6

Day 1



- This week you need to cut a piece of paper into nine pieces and number them 1 to 9.
- Shuffle the number cards and deal yourself three.
- How many **even** numbers can you make calculating with some or all of your three cards? For example, with the numbers 6, 7 and 2 here are some of the even numbers you can make:

Numbers Used	Even numbers
6, 7, 2	$6+2=8$
	$6 \times 2=12$
	$6-2=4$
	$7 \times 2=14$
	$7 \times 6=42$
	$7+6=13$
	$7 \div 6=1.166$
	$7-6=1$
	$7 \times 2=14$
	$7 \times 6=42$
	$7+6=13$
	$7 \div 6=1.166$
	$7-6=1$
	$7 \times 2=14$
	$7 \times 6=42$
	$7+6=13$
	$7 \div 6=1.166$
	$7-6=1$

- Record **all** the calculations that make even numbers.
- Now shuffle the cards and deal yourself three again. How many **even** numbers can you make this time? Record the calculations that make even numbers.
- Shuffle the cards and deal yourself three again. How many **odd** numbers can you make calculating with some or all of your three cards? Record **all** the calculations that make odd numbers.
- Now shuffle the cards and deal yourself three again. How many **odd** numbers can you make this time? Record the calculations that make odd numbers.
- Now choose three number cards which you think will produce the most even numbers and three number cards which you think will produce the most odd numbers. Record the calculations.
- What do you notice?

Notes for adults working with groups of children

- Help the children to work systematically so that they know they have found all possibilities. For example, they could start with each pair of single numbers (such as 6 and 2, then 7 and 2, then 7 and 6) and consider if different ways they can combine these will result in even numbers before making a two-digit number to combine with a single digit number etc.
- Ask the children to explain their choice of three numbers.

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Numbers Week – Calculation Y5/6

Day 2

- Shuffle the number cards and deal yourself three.
- How many numbers that are **multiples of three** can you make calculating with some or all of your three cards?

Hint: Think about counting in threes (3, 6, 9, 12, 15 ...).

For example, with the numbers 2, 7 and 3 here are **some** of the multiples of three you can make:

- $7 + 2 = 9$
- $3 \times 2 = 6$
- $72 - 3 = 69$
- ...
- Record **all** the calculations that make multiples of three.
- Now shuffle the cards and deal yourself three again. How many **multiples of three** can you make this time? Record the calculations that make these numbers.
- Now choose three number cards which you think will make the most **multiples of three**. Record the calculations.
- What do you notice?

Notes for adults working with groups of children

- Help the children to work systematically so that they know they have found all possibilities.
- Ask the children to explain their choice of three numbers.

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Day 3

- Shuffle the number cards and deal yourself **four**.
- How many numbers **between 100 and 200** can you make calculating with some or all of your four cards?

For example, with the numbers 6, 3, 2 and 5 here are **some** of the numbers between 100 and 200 you can make:

- $63 + 52 = 115$
- $56 \times 2 = 112$
- $356 \div 2 = 178$
- ...
- Record **all** the calculations that make numbers between 100 and 200.
- Now shuffle the cards and deal yourself four again. How many numbers **between 100 and 200** can you make this time? Record the calculations that make these numbers.
- Now choose four number cards which you think will be best for making numbers **between 100 and 200**. Record the calculations.
- What do you notice?

Notes for adults working with groups of children

- Help the children to work systematically so that they know they have found all possibilities.
- Ask the children to explain their choice of four numbers.

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Day 4

- Shuffle the number cards and deal yourself **four**.
- Make numbers that **round to 50** when rounding to the closest ten, by calculating with some or all of your four cards. How many can you make?

For example, with the numbers 7, 2, 4 and 5 here are **some** of the numbers that round to 50 that you can make:

- $54 - 2 = 52$
- $42 + 5 = 47$
- $75 - 24 = 51$
- ...
- Record **all** the calculations that make numbers that round to 50 when rounding to the closest ten.
- Now shuffle the cards and deal yourself four again. How many numbers that **round to 50** when rounding to the closest ten can you make this time? Record the calculations that make these numbers.
- Now choose four number cards which you think will give you **exactly 50**. Record the calculation. Can you find another four numbers? And another? Record the calculations each time.
- What do you notice?

Notes for adults working with groups of children

- Help the children to work systematically so that they know they have found all possibilities.
- Ask the children to explain their choice of four numbers.

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Numbers Week – Calculation Y5/6

Day 5

- Shuffle the cards and turn over three cards one at a time to generate a three-digit target number.

For example, turn over 2, then 4, then 9 to make 249.

- Now try using the remaining number cards to get as close as you can to your target number.

For example:

- $173 + 68 = 241$
- $315 - 67 = 247$
- $81 \times 3 = 243$
- $756 \div 3 = 252$

Record your calculations.

- Now shuffle the cards again and turn over three cards to generate another three-digit number. Now try using the remaining number cards to get as close as you can to your new target number.

Record your calculations.

- Choose three number cards which give you a three-digit target number. Now use the remaining number cards to get as close as you can to your new target number.
- Did choosing your target number allow you to get closer?

Notes for adults working with groups of children

- Ask the children to explain their choice of three-digit number.

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