

Week 2

This week in a nutshell:

Students are looking at some of the essential skills and building blocks of the numeric structures in maths. The understanding of prime numbers is critical and a high value topic. Topics seen at Key Stage 2 are enhanced and the reasoning behind notation and methods should be deepened.

Question 1: Basic addition/subtraction

Question 2: Division

Question 3: Recognising primes

Question 4: Representing products

Question 5: Composite numbers

The questions aim to develop and deepen understanding over the week. Due to the necessity of the topics covered this week, there is an emphasis on the interchangeability of command words, and language flexibility. It may be worth taking some extra time this week to make sure your students are developing their mathematical literacy.

This week's ideas for class discussion include:

Question 1: **Basic addition/subtraction**

- What tips would you give to someone learning addition and subtraction?

Question 2: **Division**

- How would you describe what division is?

Question 3: **Recognising primes**

- Why do you think prime numbers are studied in such detail?

Question 4: **Representing products**

- How are products and factors related?

Question 5: **Composite number**

- Are all composite numbers the products of primes?
- Can you write a number as a product of primes in more than one way?

Week 2: Day 1

- 1) Fill in the missing numbers to make these calculations correct.

$$22 + 18 = \underline{\quad}$$

$$99 + 23 = \underline{\quad}$$

- 2) What is 30 shared into 5 equal parts?

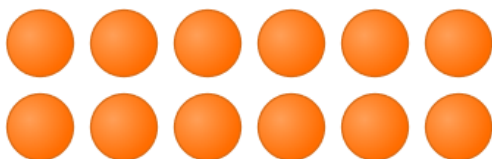
- 3) Which of these is a prime number?

15

7

18

- 4) Write down the two product calculations represented by this diagram.



- 5) Work out the composite number with the product of prime factors:

$$2 \times 2 \times 3 \times 5$$

Week 2: Day 1 Answers

- 1) Fill in the missing numbers to make these calculations correct.

$$22 + 18 = \underline{40}$$

$$99 + 23 = \underline{122}$$

- 2) What is 30 shared into 5 equal parts?

6

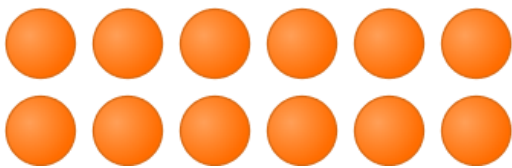
- 3) Which of these is a prime number?

15

7

18

- 4) Write down the two product calculations represented by this diagram.



$$2 \times 6$$

$$6 \times 2$$

- 5) Work out the composite number with the product of prime factors:

$$2 \times 2 \times 3 \times 5 = 60$$

Week 2: Day 2

- 1) Fill in the missing numbers to make these calculations correct.

$$65 - \underline{\quad} = 49$$

$$\underline{\quad} - 17 = 34$$

- 2) What is 36 divided by 9?
Write down a multiplication to check your answer.

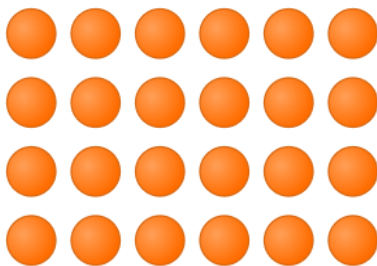
- 3) Which of these is a prime number?

11

8

9

- 4) Write down the two product calculations represented by this diagram.



- 5) Work out the composite number with the product of prime factors:
 $2 \times 13 =$

Week 2: Day 2 Answers

- 1) Fill in the missing numbers to make these calculations correct.

$$65 - \underline{16} = 49$$

$$\underline{51} - 17 = 34$$

- 2) What is 36 divided by 9? 4

Write down a multiplication to check your answer.

$$4 \times 9 = 36$$

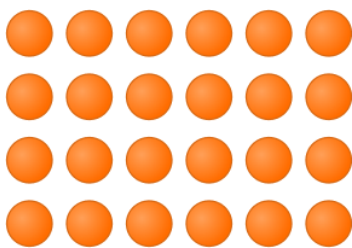
- 3) Which of these is a prime number?

11

8

9

- 4) Write down the two product calculations represented by this diagram.



$$6 \times 4$$

$$4 \times 6$$

- 5) Work out the composite number with the product of prime factors:

$$2 \times 13 = 26$$

Week 2: Day 3

- 1) Fill in the missing numbers to make these calculations correct.

$$\underline{\quad} - 38 = 35$$

$$114 + \underline{\quad} = 201$$

- 2) What is 56 divided by 8?

Write down a multiplication to check your answer.

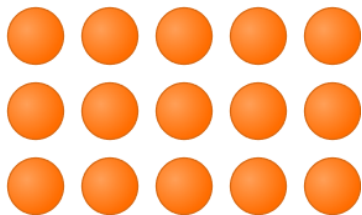
- 3) Which of these is a prime number?

27

29

25

- 4) Write down the two product calculations represented by this diagram.



- 5) Work out the composite number with the product of prime factors:

$$2^4 \times 5 =$$

Week 2: Day 3 Answers

- 1) Fill in the missing numbers to make these calculations correct.

$$\underline{73} - 38 = 35$$

$$114 + \underline{87} = 201$$

- 2) What is 56 divided by 8? 7

Write down a multiplication to check your answer.

$$7 \times 8 = 56$$

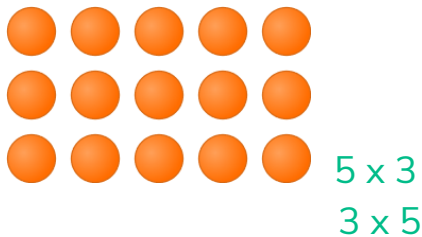
- 3) Which of these is a prime number?

27

29

25

- 4) Write down the two product calculations represented by this diagram.



- 5) Work out the composite number with the product of prime factors:

$$2^4 \times 5 = 80$$

Week 2: Day 4

- 1) Fill in the missing numbers to make these calculations correct.

$$231 - \underline{\quad} = 189$$

$$\underline{\quad} - 45 = 112$$

- 2) Divide 63 by 4 (give your answer as a whole number and a remainder).

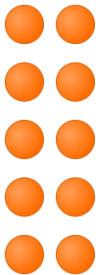
- 3) Which of these is a prime number?

31

33

35

- 4) Write down the two product calculations represented by this diagram.



- 5) Work out the composite number with the product of prime factors:

$$3 \times 7 \times 11 =$$

Week 2: Day 4 Answers

- 1) Fill in the missing numbers to make these calculations correct.

$$231 - \underline{42} = 189$$

$$\underline{157} - 45 = 112$$

- 2) Divide 63 by 4
(give your answer as a whole number and a remainder).

15 r3

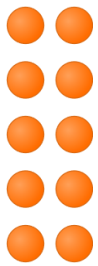
- 3) Which of these is a prime number?

31

33

35

- 4) Write down the two product calculations represented by this diagram.



2 x 5, 5 x 2

- 5) Work out the composite number with the product of prime factors:

$$3 \times 7 \times 11 = 231$$

Week 2: Day 5

- 1) Fill in the missing numbers to make these calculations correct.

$$605 + \underline{\quad} = 1001$$

$$\underline{\quad} - 107 = 47$$

- 2) State the quotient and remainder on dividing 58 by 6.

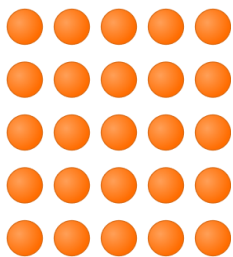
- 3) Which of these is a prime number?

47

49

51

- 4) Write down the product calculation represented by this diagram.



- 5) Work out the composite number with the product of prime factors:

$$2^2 \times 5^2 \times 7^2 =$$

Week 2: Day 5 Answers

- 1) Fill in the missing numbers to make these calculations correct.

$$605 + \underline{396} = 1001$$

$$\underline{154} - 107 = 47$$

- 2) State the quotient and remainder on dividing 58 by 6.

Quotient: 9

Remainder: 4

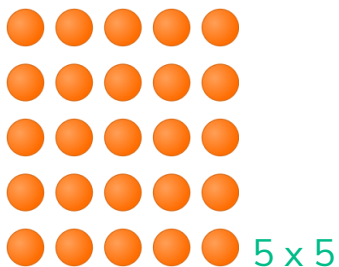
- 3) Which of these is a prime number?

47

49

51

- 4) Write down the product calculation represented by this diagram.



- 5) Work out the composite number with the product of prime factors:

$$2^2 \times 5^2 \times 7^2 = 4900$$

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