# Primary Solutions

# Faster Fluency
# Year 1 Objectives

**1** Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
**e.g. Count on from 93**

**2** Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
**e.g. Counting in 2s, what are the next three numbers after 6?**

**3** Given a number, identify one more and one less
**e.g. What number is 1 less than 57?**

**4** Read and write numbers from 1 to 20 in numerals and in words
**e.g. Write the number sixteen in numerals**

**5** Represent and use number bonds and related subtraction facts within 10*
**e.g. What is 6 + 3?**

**6** Add and subtract one-digit numbers to 10, including zero*
**e.g. What do you add to 4 to make 10?**

**7** Represent and use number bonds and related subtraction facts within 20
**e.g. What is 17 - 9?**

**8** Add and subtract one-digit numbers to 20, including zero
**e.g. What do you add to 7 to make 20?**

**9** Double numbers to 5*
**e.g. What is double 3?**

**10** Halve even numbers to 10*
**e.g. What is half of 8?**
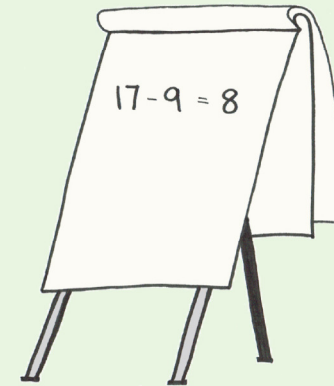
$17 - 9 = 8$

*This is an additional objective, included to support the National Curriculum

## Blue
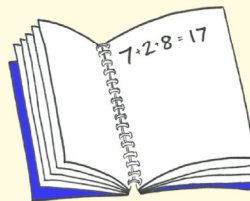Number and Place Value

## Yellow
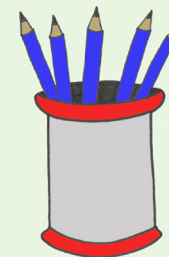Addition and Subtraction

## Green
Multiplication and Division

# Primary Solutions

# Faster Fluency Year 2 Objectives

## Blue — Number and Place Value

1. Count in steps of 2, 3 and 5 from zero
**e.g. Counting in 3s, what are the next three numbers after 15?**

2. Count in tens from any number, forwards and backwards
**e.g. Count in tens from 27**

3. Recognise the place value of each digit in a two-digit number (tens, ones)
**e.g. What is the value of the 7 in the number 73?**

4. Compare and order numbers from 0 up to 100
**e.g. Put the following numbers in order, starting with the smallest:   39, 52, 31**

5. Read and write numbers to at least 100 in numerals and in words
**e.g. Write the number seventy-eight in numerals**

## Yellow — Addition and Subtraction

6. Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
**e.g. Add together 9 and 8**

7. Add and subtract numbers mentally, including

- a two-digit number and ones
- a two-digit number and tens
- two two-digit numbers
- adding three one-digit numbers

**e.g. Add together 7, 2 and 8**

## Green — Multiplication and Division

8. Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables
**e.g. What is 9 x 5?**

9. Recognise odd and even numbers
**e.g. Is 79 an odd or even number?**

10. Double single-digit numbers*
**e.g. What is double 7?**

11. Halve even numbers to 20*
**e.g. What is half of 18?**

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## Blue
Number and Place Value

## Yellow
Addition and Subtraction

## Green
Multiplication and Division

# Primary Solutions

# Faster Fluency Year 3 Objectives

**Blue**

1. Count from zero in multiples of 4, 8, 50 and 100
   **e.g. Counting in 4s, what are the next three numbers after 20?**

2. Find 10 or 100 more or less than a given number
   **e.g. What is 100 more than 786?**

3. Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
   **e.g. What is the value of the 4 in the number 491?**

4. Compare and order numbers up to 1000
   **e.g. Put the following numbers in order, starting with the smallest: 439, 512, 431**

5. Read and write numbers up to 1000 in numerals and in words
   **e.g. Write the number six hundred and eight in numerals**

**Yellow**

6. Add and subtract numbers mentally including
   - a three-digit number and ones
   - a three-digit number and tens
   - a three-digit number and hundreds

   **e.g. What is 472 + 80?**

7. Recognise and use number bonds / complements to 100*
   **e.g. How many must you add to 68 to make 100?**

**Green**

8. Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
   **e.g. What is 56 ÷ 8?**

9. Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers
   **e.g. What is 17 x 3?**

10. Double two-digit numbers*
    **e.g. What is double 74?**

11. Halve even numbers to 100*
    **e.g. What is half of 56?**

**Purple**
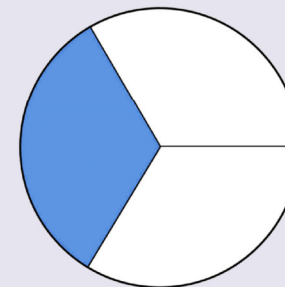
12. Count up and down in tenths
    **e.g. What are the next three fractions:**
    $\frac{9}{10}$    1    $1\frac{1}{10}$

13. Add and subtract fractions with the same denominator within one whole
    **e.g. What is $\frac{3}{6} + \frac{2}{6}$?**

14. Compare and order unit fractions and fractions with the same denominators
    **e.g. Order these fractions, starting with the smallest:**
    $\frac{3}{6}$    $\frac{1}{6}$    $\frac{5}{6}$

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**Blue**
Number and Place Value

**Yellow**
Addition and Subtraction

**Green**
Multiplication and Division

**Purple**
Fractions

# Primary Solutions

# Faster Fluency Year 4 Objectives

**1** Count in multiples of 6, 7, 9, 25 and 1000
**e.g. What are the next three numbers?   175   200   225**

**2** Find 1000 more or less than a given number
**e.g. What is 1000 more than 37,856**

**3** Count backwards through zero to include negative numbers
**e.g. What are the next three numbers?   2   1   0**

**4** Recognise the plave value of each digit in a four-digit number (thousands, hundreds, tens, ones)
**e.g. What is the value of the 7 in 7159?**

**5** Order and compare numbers beyond 1000
**e.g. Order these numbers, largest first:   9716   18,178   14984**

**6** Round any number to the nearest 10, 100 or 1000
**e.g. Round 14,513 to the nearest thousand**

**7** Add and subtract two-digit numbers*
**e.g. Add together 34 and 49**

**8** Add and subtract three-digit numbers (tens and ones do not cross the tens barrier)*
**e.g. What is the sum of 413 and 823?**

**9** Recall multiplication and division facts for multiplication tables up to 12 x 12
**e.g. What is 108 ÷ 9?**

**10** Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
**e.g. What is 300 x 4?**

**11** Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one-digit.
**e.g. What is 37 x 6**

**12** Multiply numbers by 10 and 100*
**e.g. What is 467 x 100?**

**13** Double and halve two-digit numbers*
**e.g. What is double 79?**

**14** Count up and down in hundredths
**e.g. What are the next three fractions?   $^{97}/_{100}$   $^{98}/_{100}$   $^{99}/_{100}$**

**15** Add and subtract fractions with the same denominator
**e.g. What is   $^{6}/_{8}$ +   $^{5}/_{8}$**

**16** Recognise and write decimal equivalents to $^{1}/_{4}$ , $^{1}/_{2}$ , $^{3}/_{4}$ or any tenths or hundredths
**e.g. Write $^{7}/_{100}$ as a decimal**

**17** Find the effect of dividing a one or two-digit number by 10 and 100
**e.g. What is 34 ÷ 100?**

**18** Round decimals with one decimal place to the nearest whole number
**e.g. Round 3.7 to the nearest whole number**

**19** Compare numbers with the same number of decimal places up to two decimal places
**e.g. Order these numbers, smallest first   3.41   3.49   3.14**

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## Blue
Number and Place Value

## Yellow
Addition and Subtraction

## Green
Multiplication and Division

## Purple
Fractions

# Primary Solutions

# Faster Fluency Year 5 Objectives

**1** Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
**e.g. What is the value of the 6 in 681,927?**

**2** Count forwards or backwads in steps of powers of ten, for any given number up to 1,000,000
**e.g. Count on in 10,000s from 329,109**

**3** Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
**e.g. Continue the sequence: -7, -14, -21, ...**

**4** Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000
**e.g. Round 723,178 to the nearest hundred thousand**
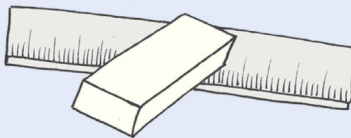
**5** Add and subtract numbers mentally with increasingly large numbers
**e.g. What is 12,463 - 2300?**

**6** Recall prime numbers up to 19
**e.g. Write down all the prime numbers up to 10**

**7** Multiply and divide numbers mentally, drawing upon known facts
**e.g. What is 179 x 8?**

**8** Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
**e.g. What is 35.6 x 100?**

**9** Recognise and use square numbers and cube numbers
**e.g. Write two square numbers between 5 and 20**

**10** Double and halve three-digit numbers
**e.g. What is double 386?**

**11** Compare and order fractions whose denominators are all multiples of the same number
**e.g. Enter the correct sign between the fractions (< > or =)** $\frac{7}{8}$  $\frac{13}{16}$

**12** Add and subtract fractions with the same denominator and denominators that are multiples of the same number
**e.g. What is $\frac{1}{8} + \frac{3}{4}$?**

**13** Read and write decimal numbers as fractions
**e.g. Express 0.71 as a fraction**

**14** Round decimals with two decimal places to the nearest whole number and to one decimal place
**e.g. Round 4.67 to the nearest whole number**

**15** Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
**e.g. Express 48% as a fraction with denominator 100**

**16** Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25
**e.g. Express $\frac{7}{100}$ as a decimal**

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**Blue**
Number and Place Value

**Yellow**
Addition and Subtraction

**Green**
Multiplication and Division

**Purple**
Fractions

**Primary Solutions**

# Faster Fluency
# Year 6 Objectives

**1** Read, write, order and compare numbers to at least 10,000,000 and determine the value of each digit
**e.g. What is the value of the 8 in 8,239,146?**

**2** Round any whole number to a required degree of accuracy
**e.g. Round 3,819,278 to the nearest million**

**3** Use negative numbers in context, and calculate intervals across zero
**e.g. What is the difference between -37.4˚c and 29.8˚c?**

**4** Perform mental calculations. inclding with mixed operations and large numbers
**e.g. What is 7000 x 0.9?**

**5** Identify common factors, common multiples and prime numbers
**e.g. Is 37 prime or composite?**

**6** Use their knowledge of the order of operations to carry out calculations using the four operations
**e.g. What is 2 + 7 x 6?**

**7** Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
**e.g. How much change do you get from £10 if you spend £1.45 and £2.57?**

**8** Double and halve three-digit numbers, including decimals*
**e.g. What is double 79.6?**

**9** Compare and order fractions, including fractions > 1
**e.g. Enter the correct sign between the fractions (< > or =)**
$1 \frac{4}{6}$     $1 \frac{39}{48}$

**10** Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
**e.g. What is $1 \frac{3}{4} + 2 \frac{1}{2}$?**

**11** Multiply simple pairs of proper fractions
**What is $\frac{3}{4} \times \frac{2}{5}$?**

**12** Divide proper fractions by whole numbers
**e.g. What is $\frac{1}{3} \div 2$?**

**13** Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places
**e.g. What is 47 ÷ 1000?**

**14** Multiply one-digit numbers with up to three decimal places by whole numbers
**e.g. What is 0.09 x 12?**

**15** Recall and use equivalences between simple fractions, decimals and percentages
**e.g. Express 78% as a fraction**

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## Blue
Number and Place Value

## Green
Addition, Subtraction, Multiplication and Division

## Purple
Fractions