## Answers

## Page 1 Number and Place Value

1. a. six hundred and seventy eight thousand five hundred and forty three
b. two million forty thousand and forty
c. eleven million one hundred and one thousand and one.
2. a. five hundred thousand 500000
b. one million 1000000
c. sixty thousand 60000
3. a. $98466 \quad 108466 \quad 118466 \quad 128466$
b. 206000

216000
226000236000
$\begin{array}{lll}\text { 4. a. } 727451 & \text { b. } 1145450 & \text { c. } 906700\end{array}$

By the end of Year 5 children will be expected to read and write numbers to at least one million and determine the value of each digit. They will also be expected to count forwards and backwards in powers of 10, 100, 1 000, 10000 and 100000.

This is challenging and many children will find reading very large numbers difficult. For plenty of practice at these skills go to our worksheets at:

## Year 5 Number and Place Value

## Page 2 Number and Place Value

5. a. Sunday
b. $5^{0} \mathrm{C}$
c. $-5^{0}$
$\begin{array}{lllll}-3^{0} & -2^{0} & -2^{0} & 0^{0} & 1^{0}\end{array}$
$2^{0}$
6. a. 130000
b. 90000
c. 100000
7. a. 400000
b. 1300000
c. 1000000
8. a. MCMLXI
b. MLXVII
c. 2000
9. a. any number between 30001 and 34999
b. 10000

Children will be taught to use negative numbers, counting forwards and backwards through zero. They will also be expected to round numbers up to a million as well as recognise years written in Roman numerals. For much more on all of these go to:

## Year 5 Number and Place Value

## Page 3 Addition and subtraction

10. 60376
11. 178549
12. 43162
13. 77345
14. £689.85
15. £634.28
16. £636 £364

Formal written methods of addition and subtraction with more than 4 digits is expected in
Year 5. This includes money and working out problems using two steps or operations.
For plenty of practice with written methods of addition and subtraction go to:

## Year 5 Addition

## Year 5 Subtraction

If difficulties are encountered it may well be worth looking at the Year 4 material.

## Page 4 Multiplication and Division

17. a. $1,2,4,8$
b. 1, 13
c. $1,2,4,5,10,20$
18. 1 and 3
19
a. 34080
b. 6552
c. 248824
d. 435477
20.9 $49 \quad 81$

In Year 5 children will be taught to identify factors as well as finding common factors of two numbers. Long multiplication is an important part of work in Year 5, including multiplying numbers up to 4 digits by a 2-digit number. Children will also be expected to recognise square numbers. For more on all of these go to:

## Year 5 Multiplication

## Page 5 Prime Numbers and Division

21. $7 \quad 11 \quad 31$
22 a. 593 r 5
b. 1150 r 7
c. 674 r 4
d. 676 r 5
22. 36 Any sensible answer

In Year 5 children will be taught to identify prime numbers. They will be expected to divide numbers up to 4 digits by a one-digit number using the short method of division. We have plenty of great worksheets on all these at:

Year 5 Division

## Page 6 Division and Fractions

24 a. 0.86
b. 0.05
c. 0.106

25 a. 0.047
b. 0.002
c. 0.111
26. $3.2 \quad 3.251 \quad 3.5 \quad 3.52$
27. a. $\frac{3}{15}$
b. $\frac{4}{10}$
c. $\frac{60}{100}$
28. a. $2 \frac{3}{5}$
b. $4 \frac{1}{2}$
c. $7 \frac{1}{3}$

Children will be expected to divide numbers involving decimals by 10,100 and 1000 . This will involve a good understanding of place value and moving numbers one, two or three places to the right.

Fractions get a lot harder, beginning with understanding equivalent fractions, a crucial element in being able to work with fractions. Changing mixed numbers to improper fractions and vice versa is introduced, simplifying where possible.

If your child has problems with either dividing mentally by 10, 100 and 1000 or with equivalent fractions we have a great set of resources which can be found at:

## Year 5 Division

Year 5 Fractions

## Page 7 Fractions

29. a.
$2 \frac{2}{5}$
b. $1 \frac{1}{2}$
c. $\frac{7}{8}$
d. $\frac{5}{6}$
30. a. $\frac{1}{2}$
b. $\frac{1}{4}$
c. $\frac{1}{6}$
31. a. $\frac{4}{1} \times \frac{2}{5}=\frac{8}{5}=1 \frac{3}{5} \quad$ b. $\frac{7}{1} \times \frac{2}{3}=\frac{14}{3}=4 \frac{2}{3}$

Adding and subtracting simple fractions with multiples of the same denominator are now part of the Year 5 programme. Children are also expected to multiply proper fractions. If any of this proves to be tricky why not take a look at our comprehensive fractions worksheets at:

Year 5 Fractions

## Page 8 Decimals and converting measurements

32. 

| Percentage | Decimal | Fraction |
| :---: | :---: | :---: |
| $25 \%$ | 0.25 | $25 / 100$ or $1 / 4$ |
| $50 \%$ | 0.5 | $50 / 100$ or $1 / 2$ |
| $75 \%$ | 0.75 | $75 / 100$ or $3 / 4$ |
| $10 \%$ | 0.1 | $10 / 100$ or $1 / 10$ |
| $20 \%$ | 0.2 | $20 / 100$ or $1 / 5$ |
| $1 \%$ | 0.01 | $1 / 100$ |

33. a. $\frac{75}{100}$
or $\frac{3}{4}$
b. $75 \%$
c. 300
34. a. 1500 m
b. 2140 mm
c. 6250 cm
d. 0.888 km

Simple percentages are introduced in Year 5, understanding that per cent means 'number of parts per hundred' and that percentages can be written as fractions.

Children should be taught to convert between different units of metric measurement e.g. metres to centimetres.

If more practice is needed on either of these topics go to:
Year 5 Fractions
Year 5 Measurement

## Page 9 Measurement, including time

35. 

a. 24 cm
b. 25 cm
36. a. 30 sq cm
b. 36 sq cm
37. 9 hours 30 minutes 38 . 1 hour 35 minutes
39. Fill in the gaps in this table:

| Time in words | $\mathbf{1 2 ~ H o u r ~}$ <br> time | $\mathbf{2 4}$ Hour <br> time |
| :--- | :---: | :---: |
| Five o'clock in the afternoon | $5: 00$ p.m. | $17: 00$ |
| Six minutes to midnight | 11.54 p.m. | $23: 54$ |
| Five past two in the afternoon | $2: 05$ p.m. | $14: 05$ |

40. 112 days 37. 900 seconds

Finding the perimeter and area of simple shapes is introduced in Year 5 and children can be confused by the two different measurements. Children should be familiar with solving time problems involving the 24 hour clock.

For further work on all aspects of measurement go to:

## Year 5 Measurement

## Page 10 Shape and angle

42. 23

41
40
43. a.
$13^{0}$
b. $123^{0}$
44. a. $35^{0}$
b. $110^{0}$

Children are expected to identify 3-D shapes from 2-D representations. They are also expected to be able to calculate missing angles, using knowledge of the number of degrees in a straight line etc. For more on these go to:

## Year 5 Geometry

## Page 11 and 12 Geometry and Statistics

45. An angle of $50^{\circ}$ drawn, if a protractor is available.
46. kite rectangle
square parallelogram
47. 



48. a. $17^{\circ} \mathrm{C}$ and $21^{\circ} \mathrm{C}$
b. $19^{\circ} \mathrm{C}$
c. $07: 00$
d. Each point along the line has a real measurement in both time and temperature,

Children will be expected to draw given angles and recognise the properties of different quadrilaterals.

They should also be able to identify and describe translations and know that the shape has not changed.

Interpreting line graphs is an important target in the Statistics programme of study.
For more on these go to:

## Year 5 Geometry

## Year 5 Statistics

