

Find the right level for your child

A guide for parents, carers and home educators

Schofield & Sims Mental Arithmetic is a structured series of books designed to help children practise and develop their maths skills. Although widely used in schools, the series is also ideal for extra practice at home, helping to build confidence, fluency and a deeper understanding of key maths topics.

If you're not sure which book to start with, this short guide includes two simple Entry Tests to help you choose the right level for your child. Each test includes a range of questions to check your child's current understanding. Their results will suggest the most appropriate book to begin with, so they can get the most from their practice.

About the tests

- **Entry Test A** is suitable for children working at Year 3 and 4 level (ages 7–9)
- **Entry Test B** is suitable for children working at Year 5 and 6 level (ages 9–11)
- Each test takes around **45–60 minutes** to complete
- Your child should try their best, but doesn't need to finish all the questions
- The questions become gradually more challenging as the test goes on

Once your child has finished the test, use the Entry Test marking key to score it. Their score will suggest the best book to start with, from Book 1 for lower Key Stage 2, up to Book 6 as a bridge to Key Stage 3.

Getting started

Using the appropriate Entry Test will help your child get the most out of the series.

- Choose the right Entry Test for your child's age
- Print or copy the test, along with some spare paper
- Let your child work through the test in a quiet space, at their own pace
- Mark the test using the guide provided and follow the score range to choose a book

Entry Test A

Name: _____

Class/Set: _____

Date: _____

Answer

Answer

1 Increase 6 by 5.

2 Name the month which is three months after December.

3 $20p + 30p =$ _____ p

4 Write this number in figures.
4 tens 7 units

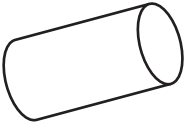
5 $63 - 7 =$ _____

6 $4 + 4 + 4 + 4 + 4 + 4 =$ _____ $\times$ _____ = _____

7 A square has _____ equal sides and _____ right angles.

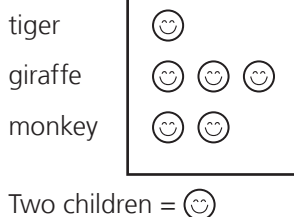
8 Add 30cm to 40cm. _____ cm

9 Write the number that is 5 more than 14 minus 9.

10  Two faces on a cylinder are the same. What shape are they?

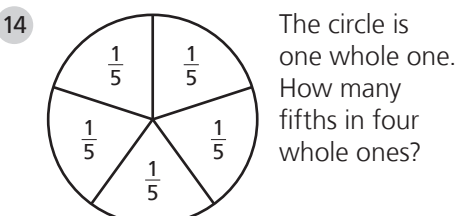
11 How much longer is 1m than 57cm? _____ cm

12 How many children chose giraffe as their favourite animal?



13 Write the two missing numbers in this sequence.

0, 8, 16, _____, 32, _____, 48



15 $400 + 70 + 5 =$ _____

16 $26 + 78 =$ _____

17 What number is added to 306 to make 376?

18 $\text{£}3.00 - \text{£}1.80$ _____ £

19 How many times smaller is 54 than 540?

20 28 March is the first day of a holiday which ends on 6 April. How many days?

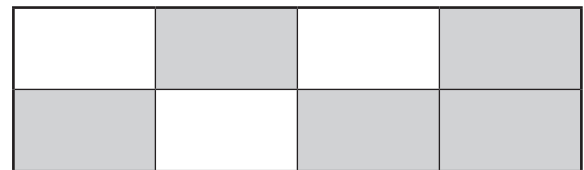
21 What fraction of the whole strip is

a shaded

a _____

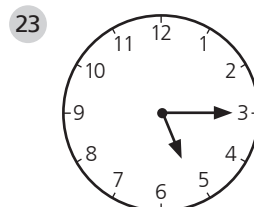
b unshaded?

b _____



Scores	
Jay	Emily
22	18
7	13
9	9

How many more did Emily score than Jay?



How many minutes from the time on the clock to ten to six?

_____ min

24 $\frac{3}{10} + \frac{6}{10} =$ _____

25 What is the missing number?

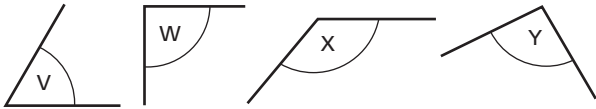
_____ $\times 6 = 8 \times 3$

26 1kg costs 45p. 200g costs _____ p.

_____ p

Answer

- 27 Which of these angles is an acute angle?



- 28 Write 4km 600m to the nearest kilometre.

_____ km

- 29 Add $\frac{1}{4}$ of 20 to $\frac{1}{8}$ of 48.

- 30 Nine pieces of wire each measure 6cm. Find the total length of the pieces in millimetres.

_____ mm

- 31 Divide 1m by 5. Answer in centimetres

_____ cm

- 32 Add three hundred to one thousand and ten. Answer in digits.

- 33 Write these decimals in ascending order.

5.79 5.31 4.87 4.09 5.33

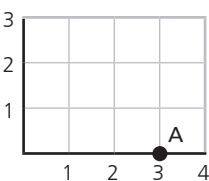
- 34 Write as £s the value of fifty-nine 5ps.

£ _____

- 35 The perimeter of a square is 60mm. Find the length of one side.

_____ mm

- 36 Write the coordinates of A.



(_____, _____)

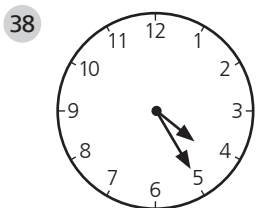
- 37 How many times larger than 35 is

a three hundred and fifty

a _____

b three thousand five hundred?

b _____



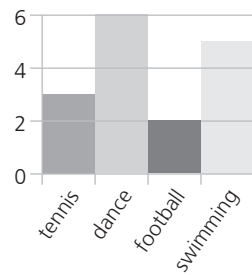
afternoon

This clock is half an hour fast. Write the correct time in digits using a.m. or p.m.

- 39 $\frac{17}{10} - \frac{8}{10} =$

Answer

- 40 Favourite sport



How many votes are shown on this bar chart altogether?

- 41 What is the missing number?

$$9 \times 8 = \square \times 12$$

- 42



Each side of this octagon is 0.6cm long. What is the length of its perimeter in millimetres?

_____ mm

- 43 Toffee apples 51p each or 4 for £1.96

How much is saved on each toffee apple by buying four at a time?

_____ p

- 44 Write, in 24-hour clock format, the correct time for each digital clock if

a clock X is 16min fast

a _____

b clock Y is 35min slow.

b _____

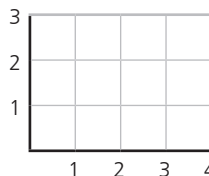


- 45 Find the difference in grams between 1.7kg and 2.3kg.

_____ g

- 46 $6.71 = \frac{\square}{100}$

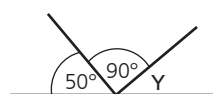
- 47



A square has vertices at (4, 0) (2, 0) (2, 2) and (x, y). What are the values of x and y?

(_____, _____)

- 48



Find the size of angle Y in degrees.

_____ °

- 49 Find $\frac{1}{2}$ of $5\frac{1}{2}$.

- 50 $6 \overline{) £4.08}$

£ _____

Entry Test B

Name: _____

Class/Set: _____

Date: _____

Answer

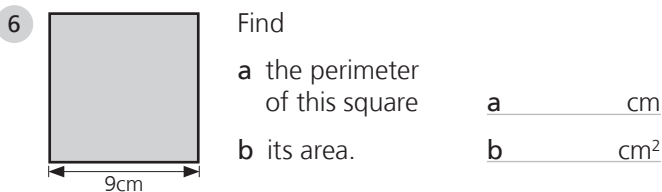
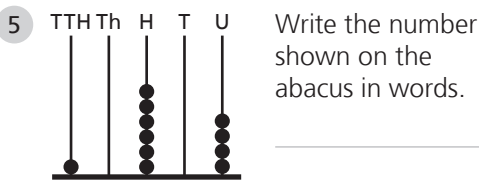
Answer

1 $200 - 96 =$ _____

2 Increase 250 by $\frac{1}{3}$ of 90. _____

3 £50.00 – five 5ps = £ _____

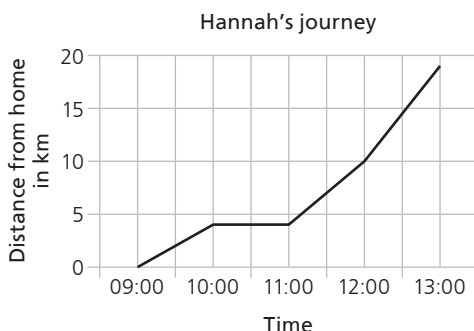
4 $5.07 \times 100 =$ _____



7 $474\,563 + 403\,003 =$ _____

8 Which year is represented by the Roman numerals MCMLXXXVII? _____

9 Hannah left home at 09:00. She stopped for coffee at a café. How far from home was the café? _____ km



10 A jug when $\frac{3}{4}$ full holds 600ml. How many millilitres does it hold when it is $\frac{1}{8}$ full? _____ ml

11 Find the two missing numbers in the sequence.

80, 8, ■, 0.08, ■

12 How many hours and minutes from time X to time Y?

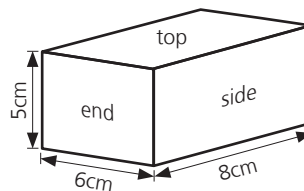


_____ h _____ min

13 $5\text{l} \div 4 =$ ■ ml _____ ml

14 The measurements of the box are given. Find the area of

- a both the sides _____ cm^2
- b both the ends _____ cm^2
- c the top and bottom. _____ cm^2



15 How many degrees in one-eighth of a full turn? _____ °

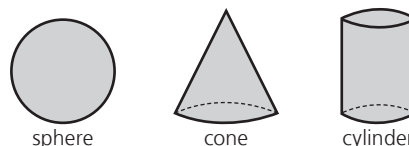
16 Increase £8.50 by 10%. £ _____

17 Which of these are equivalent to 80%?

$\frac{8}{10}$ 0.75 0.08 $\frac{1}{8}$ $\frac{4}{5}$ 0.8

18 $0.07 \times 8 =$ _____

19 Which of these shapes will have a circular face when cut horizontally and a triangular face when cut vertically?



20 Change this improper fraction to a mixed number. $\frac{27}{8}$ _____

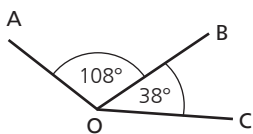
21 What percentage of 24p is 6p? _____ %

22 $102 - 87 =$ _____

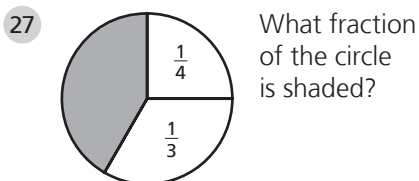
23 $16 - 6 \times 2 + 8 \div 2 =$

24 $\frac{£14.63}{7} =$

25 Calculate the reflex angle AOC.

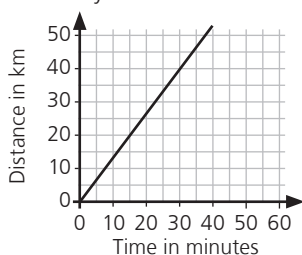


26 Harry missed the 08:48 train by 10min. How long did he have to wait for the next train at 10:25?



28 $\frac{3}{10} \times \frac{1}{2} =$

29 The graph shows the speed of a car. Use the graph to find the time taken by the car to travel 20km.



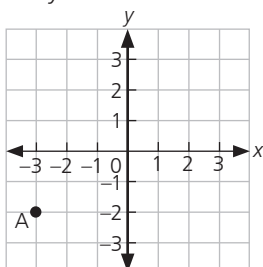
30 Change 5.2m to millimetres.

31 $252 \div 28 =$

32 The diameter of a circle is 4cm. Its circumference is 3.14 times this length. What is the perimeter of the semicircle?

33 Divide £135 in the ratio of 5:4.

34 Point A is at $(-3, -2)$. Write the coordinates of its reflection in the y-axis.



35 A coat costing £45 is reduced by 20%. How much do I pay?

Answer

£

°

h min

min

mm

cm

(,)

£

Answer

mm

36 What is the length in millimetres when an 11.5cm line is enlarged by a scale factor of 6?

37 How many thousandths in $\frac{1}{2}$ of 0.01?

38 $\frac{6}{7} \div 4 =$

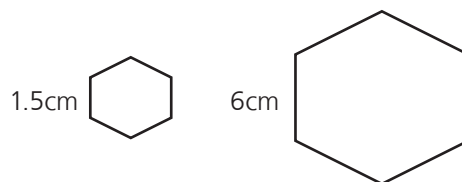
39 $1\frac{3}{8} + \frac{2}{5} =$

40 Find the circumference of a wheel of radius 3cm.

$\pi = 3.14$

cm

41 These two hexagons are similar. What is the scale factor of enlargement?



42 What is half of 3.75?

43 Arrange in descending order.

$\frac{3}{4} \quad \frac{4}{5} \quad \frac{2}{3} \quad \frac{1}{2} \quad \frac{5}{8}$ > > > >

44 This table shows the number of millimetres of rain each week for 5 weeks. What is the mean rainfall to the nearest millimetre?

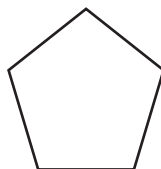
London
45
39
44
36
43

mm

45 Express 70 as the product of three prime numbers.

46 If $m = 7$, $n = 5$, evaluate $(m + n) \times (m - n)$.

47 What is the order of rotational symmetry of a regular pentagon about its centre?



48 A train goes at 78kph for 20min. How far does it travel?

km

49 True or false? $7 < \sqrt{80} < 8$

50 Write 24×25 as a number.

Entry Test A

marking key

- | | |
|--------------------------------------|--------------------------------|
| 1 11 | 26 9p |
| 2 March | 27 V |
| 3 50p | 28 5km |
| 4 47 | 29 11 |
| 5 56 | 30 540mm |
| 6 4×6 (or 6×4) 24 | 31 20cm |
| 7 4 4 | 32 1310 |
| 8 70cm | 33 4.09 4.87 5.31
5.33 5.79 |
| 9 10 | 34 £2.95 |
| 10 circle | 35 15mm |
| 11 43cm | 36 (3, 0) |
| 12 6 | 37 a 10 b 100 |
| 13 24 40 | 38 3.55 p.m. |
| 14 20 | 39 $\frac{9}{10}$ |
| 15 475 | 40 16 |
| 16 104 | 41 6 |
| 17 70 | 42 48mm |
| 18 £1.20 | 43 2p |
| 19 10 | 44 a 09:59 b 00:25 |
| 20 10 | 45 600g |
| 21 a $\frac{5}{8}$ b $\frac{3}{8}$ | 46 $\frac{671}{100}$ |
| 22 2 | 47 (4, 2) |
| 23 35min | 48 40° |
| 24 $\frac{9}{10}$ | 49 $2\frac{3}{4}$ |
| 25 4 | 50 £0.68 |

Entry Test B

marking key

- | | |
|--|--|
| 1 104 | 26 1h 27min |
| 2 280 | 27 $\frac{5}{12}$ |
| 3 £49.75 | 28 $\frac{3}{20}$ |
| 4 507 | 29 15min |
| 5 ten thousand six hundred and four | 30 5200mm |
| 6 a 36cm b 81cm^2 | 31 9 |
| 7 877 566 | 32 10.28cm |
| 8 1987 | 33 75:60 |
| 9 4km | 34 (3, -2) |
| 10 100ml | 35 £36 |
| 11 0.8 0.008 | 36 690mm |
| 12 13h 35min | 37 5 |
| 13 1250ml | 38 $\frac{3}{14}$ |
| 14 a 80cm^2
b 60cm^2
c 96cm^2 | 39 $1\frac{31}{40}$ |
| 15 45° | 40 18.84cm |
| 16 £9.35 | 41 4 |
| 17 $\frac{8}{10}$ $\frac{4}{5}$ 0.8 | 42 1.875 |
| 18 0.56 | 43 $\frac{4}{5} > \frac{3}{4} > \frac{2}{3} > \frac{5}{8} > \frac{1}{2}$ |
| 19 cone | 44 41mm |
| 20 $3\frac{3}{8}$ | 45 $2 \times 5 \times 7$ |
| 21 25% | 46 24 |
| 22 15 | 47 5 |
| 23 8 | 48 26km |
| 24 £2.09 | 49 false |
| 25 214° | 50 600 |

Marking the Entry Tests

Use the Entry Test marking keys on page 6 to mark the test. One mark is given for each correct answer. Where a question has two parts, give half a mark for each part.

The table below indicates which Mental Arithmetic book will be most suitable for each child, based on their Entry Test score.

Entry Test	Entry Test score	Next step
Entry Test A	0–8	Begin with the Mental Arithmetic Introductory Book.
	9–13	Begin with Mental Arithmetic 1.
	14–18	Would benefit from working on Mental Arithmetic 1 for consolidation but, if confident, could start Mental Arithmetic 2.
	19–28	Begin with Mental Arithmetic 2.
	29–33	Would benefit from working on Mental Arithmetic 2 for consolidation but, if confident, could start Mental Arithmetic 3.
	34–40	Begin with Mental Arithmetic 3.
	41–45	Would benefit from working on Mental Arithmetic 3 for consolidation but, if confident, could start Mental Arithmetic 4.
	46–50	Begin with Mental Arithmetic 4.
Entry Test B	0–15	Take Entry Test A for more information or begin with Mental Arithmetic 3.
	16–20	Begin with Mental Arithmetic 4.
	21–25	Would benefit from working on Mental Arithmetic 4 for consolidation but, if confident, could start Mental Arithmetic 5.
	26–29	Begin with Mental Arithmetic 5.
	30–33	Would benefit from working on Mental Arithmetic 5 for consolidation but, if confident, could start Mental Arithmetic 6.
	34–40	Begin with Mental Arithmetic 6.
	41–50	Achieving well but, for consolidation, work on Mental Arithmetic 6.