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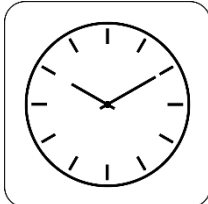
Year Group: . . . . . .

MATHEMATICAL REASONING

BOOK 3

Section 1 | Test 1

A	ANSWER
1. £4.80 + 80p = £__	£_____
2. (6 x 8) ÷ 4 =	_____
3. 8 + __ = 17	_____
4. 8cm 6mm = __	_____mm
5. 348p = £__	£_____
6. 65 x 10 =	_____
7. (54 ÷ 9) – (8 ÷ 2) =	_____
8. $\frac{5}{8} + \frac{4}{8} =$	_____
9. 34p + 66p = £__	£_____
10. £7 = __ 50ps	_____50ps
11. 2h 15min = __ min	_____min
12. 400 – 143 =	_____

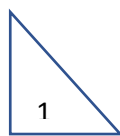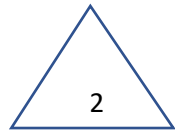| B	ANSWER
1. Add two hundred to two thousand and twenty. Answer in digits	_____
2. Increase 34 by 47	_____
3. Find the change from 85p after spending 58p	_____
4. Multiply £1.20 by 6.	_____
5. Write 66 to the nearest 10.	_____
6. Divide 400 by 5	_____
7. Write the sum of 52p, 56p and 90p.	_____
8. 54p = __ 5ps plus seven 2ps	_____
9. How many tenths in $3\frac{1}{2}$?	_____
10. Subtract 72p from £2	_____
11. How many 5ps have the same value as eight 10ps?	_____
12. Find the cost of one if 20 cost £5	_____

C	ANSWER
1. Which of these numbers will not divide into 72 without a remainder? 1 2 4 6 8 9	_____
2. Find the value of the missing number 48 + 56 = __ + 24	_____
3. How many times greater is 8 x 9 than 9 + 9?	_____
4. This clock is 28min slow. Write the correct time using a.m. or p.m.	

Afternoon

_____

5. By how much is the value of thirty 2ps less than the value of eighteen 5ps? _____

6. If 200g of flour costs 60p, how much will 700g cost? _____

7. (48 ÷ 6) + (6 x 12) = _____

8. Arrange these digits to make the largest possible number.
1 8 6 2   _____

9. Find the length in metres of the x and y Length.

X= _____

Y= _____

10. If $2\frac{1}{2}$kg costs 150p, how much will $\frac{3}{4}$kg cost? _____

11. Signs on a motorway are 200cm apart. Find in kilometres the distance between the first sign and the 22nd of the signs. _____

12. Name the rectangle which has three quarters shaded.


(A)

(B)

_____

Section 1 | Test 2

A	ANSWER
1. 4000 + __ + 30 + 1 = 4631	_____
2. 160 - 20 =	_____
3. 450 ÷ 5 =	_____
4. 87mm = __ cm __ mm	_____cm _____mm
5. (9 x 13) + 7 =	_____
6. 264cm = __ m __ cm	_____m_____**cm**
7. 357 – 83 =	_____
8. Write 39 using Roman numerals.	_____
9. $\frac{1}{5}$ of 45 + $\frac{1}{5}$ of 55 =	_____
10. 49 + 7 + 44 =	_____
11. 81min = __ h __ min	_____h_____min
12. £2.00 - __ p = 77p	_____**p**

B	ANSWER
1. Write in digits six thousand two hundred and eight.	_____
2. By how many grams is 470g less than 1kg?	_____
3. Divide 3m by 5. Answer in centimetres.	_____
4. Find the change from a £1 after spending 32p.	_____
5. Find the cost of 1 if 10 cost £7.	_____
6. How many fours in 10 whole ones?	_____
7. 42p = 3 10ps + __ 2ps	_____
8. Find the sum of £0.48 and £0.34.	_____
9. What must be added to 85p to make £1.80?	_____
10. How many minutes from 10:47 a.m. to noon?	_____
11. One costs £0.99. Find the cost of five.	_____
12. Add 6 x 8 and 7 x 4.	_____

C	ANSWER
1. Take four thousand and forty from 4444.	_____
2. What numbers other than 1, 2, 3 and 18 will divide into 54 without leaving a remainder?	_____
3. Which of the two triangles is a right-angled triangle?	_____

C	ANSWER
4. One-quarter of a class of 64 children have brown hair. How many children do not have brown hair?	_____
5. Which four coins are given in change from £1 after spending £0.33?	_____
6. Write the total mass of the two tins in kilograms and grams.	_____
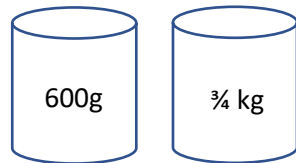
7. Find the difference between the two largest fractions in this set.

$\{\frac{3}{10}, \frac{6}{10}, \frac{13}{10}, \frac{4}{10}\}$ _____

8. Find the difference between (6 x 10) and (6 x 100) _____

9. Lia bought a box containing 250 straws. How many weeks will they last if she uses 10 straws each week? _____

10. Write the sum of £0.72, £2.48 and £2.80 _____

11. How many children altogether in the four classes?

Class 1	Class 2	Class 3	Class 4
50	52	50	48

_____

12. If food is sold at £4 per $\frac{1}{2}$kg, how many grams can be bought for

A £1 _____

B £2 _____

Section 1 | Test 3

A **ANSWER**

1. 830 + 170 = _____

2. 25p + 9p = 16p + __ p _____ p

3. 25 x 10 = _____

4. $\frac{7}{5} - \frac{5}{7}$ = _____

5. (1 x 10) + (0 x 2) = _____

6. 56 + 43 = _____

7. 600 – 160 = _____

8. 1kg – 500g = __ g _____ g

9. £5 = __ 5ps _____ 5ps

10. 3h 25min = __ min _____ min

11. £5.69 = __ 10ps + 9p _____ 10ps

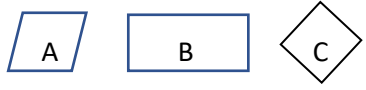12. ($\frac{1}{6}$ of 36) + ($\frac{1}{5}$ of 25) = _____

B **ANSWER**

1. Find the total of 58 and 42. _____

2. What is the change from a £2 after spending 38p and 36p? _____

3. Decrease 15cm by 10mm. _____

4. Multiply 8 by 11 and subtract 6. _____

5. Write 248mm to the nearest centimetre. _____

6. What sum of money is two times smaller than £0.38? _____

7. Write 50 using Roman numerals. _____

8. 1$\frac{1}{2}$kg of spaghetti costs £3. What is the cost of 300g? _____

9. How many 10ps are equal to £5.50? _____

10. How many times smaller is £2.10 than 21p? _____

11. How many days altogether in the 9th and 10th months of the year? _____

12. How much change from four 20ps after buying four ribbons at 17p each? _____

C **ANSWER**

1. Write this date in digits only. The twenty-third day of April two thousand and one.

_____

2. How many grams must be placed in bag Y to match the weight of bag X? _____

X	Y
3 ½ kg	900g

3. (8 x 0) + (1 x 4) + (5 x 1) =

_____

4. Which of these fractions are equivalent?
$\{\frac{3}{5}, \frac{4}{5}, \frac{3}{7}, \frac{3}{4}, \frac{3}{12}, \frac{6}{10}\}$

_____

5. One 50p and a 10p were given as change from £2. How much had been spent? _____

6. Write the missing signs +, -, x, ÷ in:
9 __ 4 = 25 __ 5 _____

7. How much greater is the distance round the rectangle than the distance round the square?

28mm (square), 20mm and 40mm (rectangle)

_____

8. If 2kg of fudge costs £2, find the cost of
A 200g _____
B 600g _____

9. Add three quarters of 48 to one seventh of 63.

_____

10. Samuel was born in February but Kika was born 5 months earlier. In what month was Kika born?

_____

11. Five cakes of equal value cost 80p. What do two of the cakes cost?

_____

12. Kim and Arya travel from home to church and back once a day. How many kilometres more does Arya travel in 5days than Kim?

_____

Kim — 400m — Church — 600m — Arya

Section 1 | Test 4

A	ANSWER
1. 718 = __ tens + 8 units	_____ **tens**
2. $3\frac{1}{4}$kg = __ g	_____ g
3. 50cm = __ mm	_____ mm
4. 3000 ÷ 10 =	_____
5. £4.00 – 73p = __ p	_____ **p**
6. 5000 + 600 + 10 + 9 =	_____
7. 61 ÷ 4 = __ r __	_____ r _____
8. __ p – 2 p = 9p	_____ p
9. 4444 + 56 =	_____
10. Write 14 using Roman numerals.	_____
11. 1l – 50 ml = __ ml	_____ ml
12. (7 x 7) + 7 =	_____

B	ANSWER
1. $\frac{1}{6}$ of a number is 16. What is the number?	_____
2. Subtract £2.54 from £4.	_____
3. Multiply £4.16 by 3.	_____
4. Add 6 to the sum of 8 and 3.	_____
5. Find the remainder when 47 is divided by 4.	_____
6. 56p plus 92p plus __ p = £2	_____
7. Add the even numbers between 23 and 29.	_____
8. Increase $6\frac{1}{2}$cm by 50mm.	_____
9. How many meters in 50cm x 6?	_____
10. Four bottles cost 48p. What did one cost?	_____
11. How many years from 1947 to 2019?	_____
12. If one eraser costs £0.10, find the cost of 200	_____

C	ANSWER
1. Write the time 8 hours after 5 pm. Use am or pm.	_____
2. Write four-tenths as a decimal.	_____
3. Which of the shapes has two pairs of parallel lines, four sides of equal length and four right angles?	_____

A   B   C

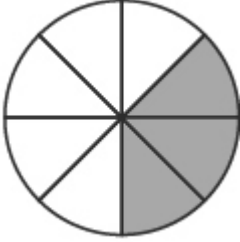|	
4. Find the change from £6 after spending £2.76 and £0.44	_____
5. If one carrot cost 40p. What is the cost of	
A six carrots	_____
B four carrots	_____
6. By how many is $\frac{3}{4}$ of 40 is greater than $\frac{3}{5}$ of 40?	_____
7. Write the total capacity of the six bottles in litres and millilitres if each holds 890ml.	_____
8. Ina drama club of 28 boys and 32 girls, six children were absent. What fraction of the children were	
A absent	_____
B present	_____
9. How many more children attended an event in April than January?	_____
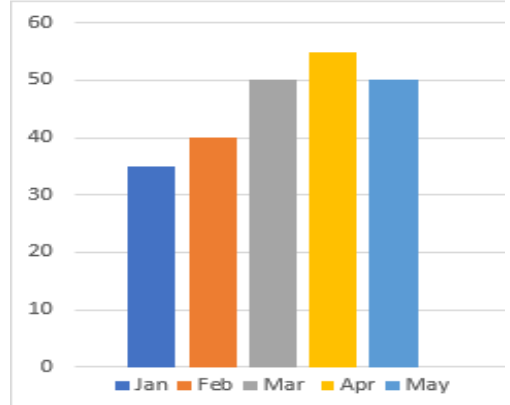
10. How many packets of crisps each having a mass of 200g can be made from a 3kg pack?	_____
11. The distance round a triangle having equal sides 36cm. Write the length of each side in millimetres.	_____
12. A packet of mints has a mass of 376g. Write the mass of 20 packets	
A to the nearest 200g	_____
B to the nearest kilogram	_____

Section 1 | Test 5

A	ANSWER
1. 52 ÷ 7 = __ r __	_____ r_____
2. 200 = __ tens	_____ tens
3. $\frac{1}{11} + \frac{9}{11}$ =	_____
4. 350cm = __ m __ cm	_____**m** _____**cm**
5. 200 + 1800=	_____
6. 165mm = __ cm __ mm	_____**cm** ____**mm**
7. 10.56 am to noon = __ min	_____**min**
8. 41 x 10 =	_____
9. 18 – 3 = __ + 3	_____
10. 99p + 99p = £ __	**£** _____
11. (6 x 4) + 16 =	_____
12. (81 ÷ 9) + (0 ÷ 1)=	_____

| B	ANSWER
1. Find the sum of £3.60 and £0.36.	_____
2. Subtract 80mm from 30cm.	_____
3. Write in digits, six thousand and ninety-eight.	_____
4. Write in digits the time that is $5\frac{1}{2}$ hours after midday. Use am or pm.	_____
5. Multiply 8 by 80.	_____
6. Add £0.38 to £4.72.	_____
7. Find the difference between £10 and £6.88.	_____
8. Write in digits the number that is half of eleven thousand.	_____
9. Find in centimetres $\frac{2}{5}$ of half a metre.	_____
10. What is the product of 10 and 150?	_____
11. What must be added to 26p and 32p to equal 80p?	_____
12. Find the cost of one cloth if 10 cost £50.	_____

C	ANSWER
1. Find the cost of $4\frac{1}{2}$kg of potatoes at 32p per kg.	_____

2. Price exchanged these coins for 20ps. How many did she get? _____

Six	10ps
Eighteen	5ps
Four	2ps
eight	1ps

3. Which fraction in the set is not equivalent to the others? _____
$\{\frac{4}{6}, \frac{12}{15}, \frac{6}{9}, \frac{8}{12}, \frac{2}{3}\}$

4. How many months in a year have 30 days only? _____

5. Bran travelled 800km in 3 days. On the first day he travelled 260km and on the second day 456km. How far did he travel on third day? _____

6. What fraction of the circle is
   A shaded _____
   B unshaded _____

7. Tape costs 24p per $\frac{1}{2}$m. Find the cost of 275cm. _____

8. By how much is 25p divided by 5 less than 25p multiplied by 10? _____

9. Tyrion saved 90p each week for 16 weeks. How much short of £20 did he save? _____

10. George had 90p left after spending £2.16 and losing £0.54. How much did he have at first? _____

11. The children were placed in two mixed year groups of equal numbers. How many children were there in each class? _____

Silverside School	
Number of children	Year1 – 66, Year2 -58

12. Write the missing signs +, -, ÷, x in the equation.
9 __ 5 __ 6 = 8 _____

Section 1 | Test 6

A	ANSWER
1. 600 + __ + 10 + 6 = 6516	_____
2. 7 weeks = __ days	_____days
3. 810 ÷ 10 =	_____
4. £1.00 – 89p = __ p	_____ **p**
5. 3130 + 370 =	_____
6. 2l – 950ml = __ ml	_____ml
7. 87 ÷ 8 = __ r __	_____ **r** _____
8. 9 + __ = 8 + 7	_____
9. 58cm + 44cm = __ m __ cm	_____**m**_____**cm**
10. $\frac{5}{9} + \frac{7}{9}$ =	_____
11. ($\frac{1}{4}$ of 44) + ($\frac{1}{6}$ of 42) =	_____
12. (7 x 6) + (7 + 6) =	_____

B	ANSWER
1. Find the difference in centimetres between 10m and 930cm.	_____
2. How many thirds in 6 whole ones?	_____
3. Divide £8.40 by 7.	_____
4. Subtract 120cm from $3\frac{1}{2}$m.	_____
5. Write in digits the time that is $3\frac{3}{4}$ hours after 11.30am. Use am or pm.	_____
6. Find the sum of £0.96 and £3.08.	_____
7. Write 69 using Roman numerals.	_____
8. 36p + 36p + 36p + 36p =	_____
9. How many 10ps would be exchanged for £4.70?	_____
10. Find the cost of 25 if one costs 18p.	_____
11. Multiply £0.99 by 6.	_____
12. How many fruits each costing 8p can be bought for £4?	_____

C	ANSWER
1. From six thousand subtract eight hundred. Write the answer in digits	_____
2. Divide the sum of 8p, 3p, 4p and 5p into four equal amounts. How much is each amount?	_____
3. What number must be subtracted from 106 to leave 58?	_____
4. How much will 36 cards cost if 9 cards cost 50p?	_____
5. 36 + 18 - __ = 10. Find the value of the missing number.	_____
6. Find the change from £2 after buying six apples at 28p each.	_____
7. How much greater is £0.36 ÷ 4 than £0.21 by 3?	_____
8. Find the total cost of twelve tins of beans and six tins of onions.	_____
9. What is the mass in kilograms and grams of:	
A the twelve tins of beans	_____
B the six tins of onions ?	_____

Beans £1.30 480g

Onions 30p 450g
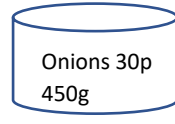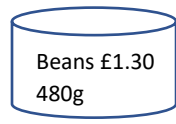
	ANSWER
10. Which of the triangles is	
a right angled triangle	_____
an acute angled triangle	_____
an obtuse angled triangle?	_____

A B C

	ANSWER
11. Take $\frac{1}{4}$ of 200 from $\frac{7}{10}$ of 200.	_____
12. How many minutes longer is it from 10.20am to noon than from 1.40pm to 3.00pm?	_____

**Section 1	Test 7**

A   **ANSWER**

1. $\frac{12}{12} - \frac{6}{12} =$ _____

2. £5.50 + 80p = £__   **£**_____

3. 2l 100ml = __ ml   _____ml

4. 8000 + __ + 1 = 8051   _____

5. 89 ÷ 9 = __ r __   ___ **r** _____

6. From noon to 2.15pm = __ h __ min   ____**h**____**mins**

7. 200 x 10 =   _____

8. (8 x 4) + (6 x 9) =   _____

9. 5315 + 85 =   _____

10. 37 − 9 − 3 =   _____

11. 30 2ps = __ 10ps   _____10 ps

12. (56 ÷ 8) + (42 ÷ 7) =   _____

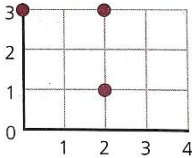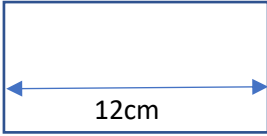
B   **ANSWER**

1. Find the product of 12 and 7.   _____
2. How much lesser is £2.16 than £8.   _____
3. Find the total of even numbers between 5 and 13

         _____

4. How many fifths are equal to ten-tenths?

         _____

5. Multiply 50p by 9.   _____
6. Subtract 400g from $\frac{3}{4}$ kg.   _____
7. Six pens cost 72p. Find the cost of one pen.

         _____

8. Find the difference in the length between $2\frac{1}{2}$ m and

   270cm   _____

9. Write 52mm to the nearest centimetre.

         _____

10. How many times smaller is 40 than 4000?

         _____

11. 50 cost £8.00. What is the cost of one?

         _____

12. Write the value of twelve 50ps.   _____

C   **ANSWER**

1. Ben has £3.12 and Monica has £2.88. If they share their money equally, how much does each have?

         _____

2. Write the next two numbers in sequence

   10, 8, 6, 4, 2, 0, __ , __   _____,_____

3. Find the cost of 1500g if 400g cost 80p.

         _____

4. How many times greater than 50 is

   A four hundred and fifty   _____

   B four thousand five hundred?   _____

5. An event started at 8.00pm. The event lasted for $1\frac{1}{2}$ hours. There was also a 20-minute interval. At what time did the event end?   _____

6. Write 8m 90cm as

   A centimetres   _____

   B millimetres   _____

7. Find the change from £4 after buying $1\frac{1}{4}$ kg of cheese at 80p per kilogram   _____

8. Write in digits five less than six thousand two hundred.   _____

9. How much greater is the sum of odd numbers in the box than the sum of the even numbers?

   | 30   35   39   42 | _____

10. Freddie has 40p pocket money. She saves $\frac{1}{5}$ and spends the remainder. How much does she

   A save   _____

   B spend   _____

11. Eighteen trays, each containing twelve cakes, were bought for a party. If nine cakes were left over, how many had been eaten?   _____

12. Write all the numbers between 30 and 70 which are multiples of 8.   _____

Section 1 | Test 8

A | ANSWER

1. 6 x 6 x 6 = _____

2. __ p + £2.58 = £4.50 _____p

3. 570 + 130 = _____

4. $1\frac{1}{4}$m = __ cm _____cm

5. 81 ÷ 5 = __ r __ _____ r_____

6. 30p + 60p + 5p – 16p = _____p

7. 330mm = __ cm _____cm

8. $\frac{11}{9} - \frac{6}{9}$ = _____

9. $5\frac{1}{2}$kg = __ g _____g

10. (6 x 3) + (9 x 0) = _____

11. 72 hours = __ days _____ days

12. ($\frac{1}{3}$ of 36) – ($\frac{1}{7}$ of 7) = _____

B | ANSWER

1. Write 42 using Roman numerals. _____

2. Write 2375g to the nearest kilogram. _____

3. Find the product of 16 and 32 _____

4. How many tea cups costing 30p each can be bought for £15.00? _____

5. How many months in eight years? _____

6. What must be added to £5.04 to make £10?

_____

7. A 32cm strip is cut into four equal pieces. Write the length in millimetres of one piece. _____

8. Multiply 32 by 14. _____

9. Decrease $8\frac{3}{4}$m by 50cm. Write the answer in metres.

_____

10. If one jam costs 18p, find the cost of 200.

_____

11. Find the difference between (68 + 33) and (5 x 10)

_____

12. How many 4ps have the same value as forty 5ps?

_____

C | ANSWER

1. What must be added to 50cm and 78cm to make 2m? _____

2. What is the nearest number to 80 that will divide by 9 without a remainder? _____

3. The three marked points are the three vertices of a square. Write the coordinates of the fourth vertex of the square

(__ , __) _____

4. Continue the sequence
14, 10 , 6, 2, __ , __ _____

5. Eight sweets cost 18p. Find the cost of 40 sweets.

_____

6. The distance round the rectangle is 40cm. If the length is 12cm, what is the width? _____

12cm

7. Find the value of the missing number.
26 + 38 = __ + 50 _____

8. The clock is 12 minutes fast. What is the correct time? Use am or pm. _____
A.M.

9. Ziva's uncle is 64 years and 10 months old. Ziva's aunt is 60 years and 8 months old. How many months older is her uncle than her aunt?

_____

10. What fraction of the 1kg is each bar of soap?

A)400g   B)200g   C)100g

A _____
B _____
C _____

11. Write these decimals in ascending order.

3.6 3.1 2.8 0.9 _____

12. Write the missing signs +, -, ÷, x
(10 __ 10) __ 10 = 90 _____

10