

National curriculum tests

Key Stage 2

Mathematics test mark schemes

Practice Paper 1-1: arithmetic

Practice Paper 2-1: reasoning

Practice Paper 3-1: reasoning



Structure of the key stage 2 mathematics test

The key stage 1 mathematics test is administered on paper and comprises:

- Paper 1: arithmetic (40 marks)
- Paper 2: reasoning (35 marks)
- Paper 2: reasoning (35 marks)

Each paper includes material drawn from the statutory section of the key stage 1 national curriculum (2014). Details of content references can be found at :

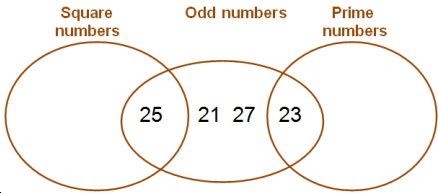
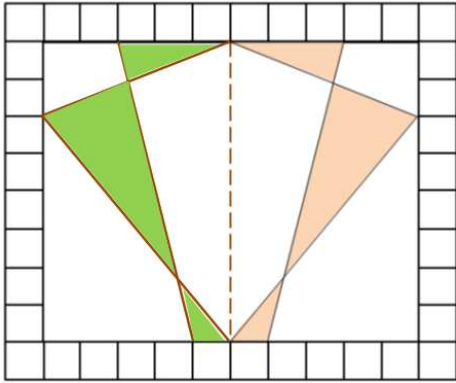
- www.mathsmadeeasy.co.uk/maths-year-3.htm
- www.mathsmadeeasy.co.uk/maths-year-4.htm
- www.mathsmadeeasy.co.uk/maths-year-5.htm
- www.mathsmadeeasy.co.uk/maths-year-6.htm

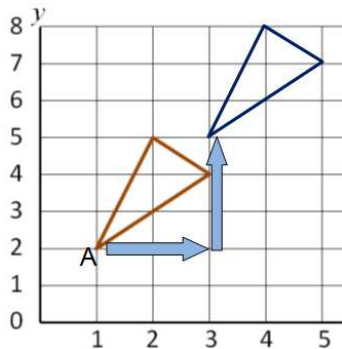
Answers for Paper 1: arithmetic

Question	Answer	Mark	Reference
1	889	1	3N2b
2	230	1	3C2
3	0	1	4C6b
4	117	1	3C1
5	1113	1	3C2
6	17	1	3C7
7	2367	1	4C7
8	709	1	3C1
9	28	1	3C7
10	85,743	1	5C2
11	702	1	3C7
12	23300	1	5C6b
13	9.573	1	5F8
14	4800	1	5C6a
15	176	1	5C7b
16	3.433	1	5F8
17	2.009, 2.099, 2.10, 2.19	1	5F8
18	0.11	1	6F9a
19	106,457	1	5C2
20	11	1	6C9
21	0.07	1	6F9a
22	110	1	4C6b
23	574 2460+ 3034	1 1	5C7a
24	39 93= 2r 15 39 156 = 4 24	 1 1	6C7b


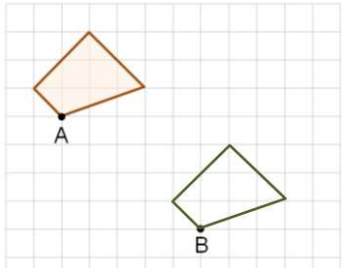
25	32074 137460+ 169,534	1 1	6C7a
26	$2/9$	1	4F4
27	$1/6$	1	5F4
28	2	1	6F4
29	$62+31 = 93$	1	6R2
30	4.64	1	4F8
31	67.2	1	6F9b
32	$37 107 = 2r\ 33$ $37 337 = 9$ 29	1 1	6C7b
33	72	1	5F5
34	$2\ 7/20$ or $47/20$	1	6F4
35	$1/5$	1	6F5b
36	$70 - 7 = 63$	1	6C9

Answers for Paper 2: reasoning

Question	Answer	Mark	Reference
1a	399	1	3N2a
1b	455	1	3N2a
2	199890 199880 199090 198990 189890	1	5N2
3	162 243 405	all correct for 2 mark otherwise 1 mark	3C2
4a	325975	1	4S1
4b	17195	1	5S1
5	 <p>Square numbers Odd numbers Prime numbers</p> <p>25 21 27 23</p>	all correct for 2 marks otherwise 1 mark	5C5c
6		1	4G2c
7	$\frac{2}{3}$ $\frac{6}{9}$	1 1	6F2
8	$0.79 - 0.45 = 0.34$	1	5F10
9	1. 2 pens cost $6.72/2 = \text{£}3.36$ Pencil costs $\text{£}3.78 - \text{£}3.36 = 42\text{p}$	1 1	3M9a
10	$\frac{4}{15}$ $\frac{2}{10} \leftarrow \frac{1}{5}$	1 1	3F2

11	2 oranges are $600 - 90 = 510\text{g}$ 1 orange - $510/2 = 255\text{g}$	1 1	5M9c
12	$2 \times 31 + 7 = 62 + 7 = 69$ $87 - 5 = 2s$ so $s = 82 \div 2 = 41$	1 1	6A2
13	one tea bag $600 \div 200 = 3\text{g}$ 30 bags weigh 90g box is $600 - 90 = 510\text{g}$	1 1	6R1
14	18, 36	1	6C5
15	Midway between 50 and 68 15C	1 1	5M5
16	$885000 - 25000 = 860,000$ $384,900,000$	1 1	6N2
17	$a = 30^\circ$ $b = 180 - 90 - 30 = 60^\circ$	1 1	6G4b
18	50	1	6C8
19	10 cakes cost $10 \times \pounds 1.25 = \pounds 12.50$ sell $8 \times 50\text{p} \times 10 = \pounds 40$ Profit = $\pounds 40 - \pounds 12.5 = \pounds 27.50$ or 27.5	1 1 1	6C8
20	 <p>order of translate doesn't matter (3, 5)</p>	1	6P2

Answers for Paper 3: reasoning

Question	Answer	Mark	Reference
1	90, 54	1 1	3C1
2	14:55 ticked	1	4M4b
3	9 to $-5 = 13$ -7	1 1	6N5 6N5
4	 = 7 $8 \times 7 = 56$ children	1 1	6A2
5	0.09, 0.239, 0.321, 0.402, 0.41	1	5F8
6	$1.23 + 2.89 = 4.12\text{kg}$ $5 - 4.12 = 0.88\text{kg}$	1 1	4F10b
7	5 3 2 4 1 A O A A O	1 1	4G4
8	92p change $\pounds 2 - 92\text{p} = \pounds 1.08$ $1.08 \div 6 = 18\text{p}$	1 1	6C8
9	2 hours 54 min 18:39	1 1	5S1
10	18 blocks is B	1	5M8
11	$35 \times 4 \times 12 =$ 1680	1 1	6C7a
12	work backwards from answer doing opposite $18.4 \div 2 - 5 = 4.2$ $4.2 \times 3 = 12.6$	1 1	5F10
13		1	4P2

14	1981 1976	1 1	5N3b
15	100,000 123,000 123,460	all correct for 2 marks	5N4
16	5 bananas weigh 600g $600 \div 5 = 120\text{g}$	1 1	6R4
17	area = 5 squares D	1	6M7b
18	$25 - 20 = 4\text{kg}$ $4/20 = 2/10 = \text{m}20\%$	1 1	6R2
19	200×3000	1	6N6
20	$1.05 + 1.45 = 2.5\text{kg}$ 2.5 is $1/5$ start is $5 \times 2.5 = 12.5\text{kg}$	1 1	5F10
21	1.68	1	6C8

This mark scheme does not offer additional guidance. and it is left to the class teacher to determine outcomes. The government mark scheme should act as a guideline