

Set A — Answers

Set A Paper 2

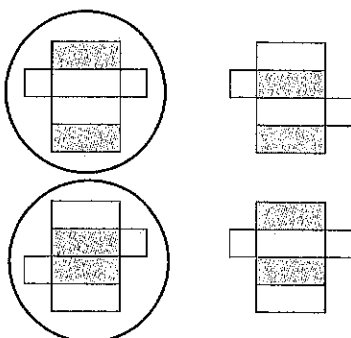
Qu.	Requirement	Guidance	Marks (Domain)
1a	$3 \times 8 = 24$ or $4 \times 8 = 32$		1 (3C6)
1b	$3 \times 4 = 12$ or $4 \times 3 = 12$		1 (3C6)
2a	7°C to 0°C is 7°C. 0°C to -2°C is 2°C. So, total change is 7°C + 2°C = 9°C		1 (6N5)
2b	-2°C - 3°C = -5°C		1 (6N5)
3a	$\begin{array}{r} 2\ 6\ 4\ 0\ 0\ 0 \\ +\ 2\ 8\ 8\ 5\ 0\ 0 \\ \hline 5\ 5\ 2\ 5\ 0\ 0 \\ 1\ 1 \end{array}$		1 (4S2/5S1)
3b	$\begin{array}{r} 2\ 8\ 8\ 5\ 0\ 0 \\ -\ 5\ 4\ 4\ 5\ 0 \\ \hline 2\ 3\ 4\ 0\ 5\ 0 \end{array}$		1 (4S2/5S1)
4a	Circumference		1 (6C5)
4b	$12 \times 2 = 24$ cm		1 (6C5)
5a	1		1 (3C4b)
5b	2		1 (4C4)
6	0.165, 0.62, 5.6, 6.052, 6.4		1 (5F8)
7	1, 3, 5, 15		1 (5C5a)
8	$8 = 2 \times 4$, so $5 \times 4 = 20$		1 (4C8)
9	2 sketch pads cost $\pounds 12.30 \div 3 = \pounds 4.10$ So the book costs: $\begin{array}{r} \pounds 12.30 \\ -\ \pounds\ 4.10 \\ \hline \pounds\ 5.90 \end{array}$	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (5M9a)
10	Angle should be within 2° of 75°. Correct side should be within 2 mm of 5.5 cm.	2 marks for correct triangle, otherwise 1 mark for an angle of the correct size or a side of the correct length.	2 (6C3a)
11	A rectangle of 6 units \times 2 units OR 12 units \times 1 unit.		1 (6M7a)
12	$\pounds 5.50 - \pounds 3 = \pounds 2.50$ $\pounds 2.50 \div \pounds 0.50 = 5$	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (6A2)
13	$\frac{1}{2}$, 40%, 0.1 ($\frac{1}{2} = 0.5$, 40% = 0.4, 0.5 + 0.4 + 0.1 = 1)		1 (5F12)
14	Amy is $\frac{4}{5} \times 10 = \frac{40}{5} = 8$ years old $\begin{array}{r} 4\ 2\ 5 \\ \times\ 8 \\ \hline 3\ 4\ 0\ 0 \\ 2\ 4 \end{array}$ So Tim's mum is 4.25×8 $= 3400 \div 100 = 34$ years old	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (6F10)

Qu.	Requirement	Guidance	Marks (Domain)
15	1976		1 (5N3b)
16a	23		1 (6C6)
16b	E.g. $16 = 2 \times 8$, so to find $368 \div 16$, divide $368 \div 8 = 46$ by 2.		1 (6C6)
17a	$27 \div 5 = 5\text{ r } 2$ So $\frac{27}{5} = 5\frac{2}{5}$		1 (5F2a)
17b	$2\frac{4}{9} = \frac{2 \times 9}{9} + \frac{4}{9} = \frac{18+4}{9} = \frac{22}{9}$		1 (5F2a)
18	Area of shaded parallelogram $= 4 \times 12 = 48\text{ mm}^2$ Base of unshaded triangle $= 7 - 4 = 3\text{ mm}$ Area of triangle $= 0.5 \times 3 \times 12 = 18\text{ mm}^2$ Total area $= 48 + 18 = 66\text{ mm}^2$	2 marks for correct answer, otherwise 1 mark for at least one area correct.	2 (6M7b)
19a	$\frac{1}{8}$		1 (6S1)
19b	Sunday E.g. She saw $24 \div 4 = 6$ blackbirds on Sunday. Fewer than half the birds she saw on Saturday were blackbirds, so she saw fewer than $12 \div 2 = 6$ blackbirds on Saturday.		1 (6S1)
20	Total membership fees $= 10 \times \pounds 12 = \pounds 120$ Cost of $4 \times 10 = 40$ balls $= 2 \times \pounds 19.78$ $\begin{array}{r} 1\ 9.\ 7\ 8 \\ \times\ 2 \\ \hline 3\ 9.\ 5\ 6 \\ 1\ 1\ 1 \end{array}$ Cost of 10 T-shirts $= \pounds 4.99 \times 10$ $= \pounds 49.90$ Total cost of balls and T-shirts: $\begin{array}{r} \pounds\ 39.56 \\ +\ \pounds\ 49.90 \\ \hline \pounds\ 89.46 \\ 1\ 1 \end{array}$ Money left over: $\begin{array}{r} \pounds\ 120.00 \\ -\ \pounds\ 89.46 \\ \hline \pounds\ 30.54 \end{array}$	3 marks for correct answer, otherwise 2 marks for a correct method with one error or for correctly finding the total cost of all the items. Award 1 mark for correctly finding the cost of 40 balls and the cost of 10 T-Shirts.	3 (6C8)

Set A Paper 3

Qu.	Requirement	Guidance	Marks (Domain)
1a	A and C		1 (4C2a)
1b	A and B		1 (4C2a)
2	110300, 102600, 102514, 77800		1 (5N2)
3a	$12 \times 4 = 48$		1 (3C8)
3b	There are $3 + 4 + 1 = 8$ balloons in a packet. So she needs $24 \div 8 = 3$ packets		1 (3C8)

Set A & B — Answers

Qu.	Requirement	Guidance	Marks (Domain)
4	Eight million, Eighty thousand, Eighty		1 (6N3)
5	1.4 kg = 1400 g 1400 g – 550 g = 850 g	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (3M9c)
6a	12 cm ³		1 (5M8)
6b	12 × 3 = 36 cm³		1 (5M8)
7	He eats 21 ÷ 7 = 3 apples each day. $\begin{array}{r} 365 \\ \times 3 \\ \hline 1095 \end{array}$ So he eats 1095 apples in 365 days.	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (5C7b/ 4M4c)
8			1 (5C3b)
9a	168		1 (4F7/5F7)
9b	458, 462, 464, 455		1 (4F7/5F7)
10	Change = £2 + £2 + £0.20 + £0.05 = £4.25 Cost of pencil case and 4 pencils = £10 – £4.25 = £5.75 4 pencils cost: $\begin{array}{r} £5.75 \\ - £2.95 \\ \hline £2.80 \end{array}$ So one pencil costs £2.80 ÷ 4 = £0.70 or 70p	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (5M9a)
11a	nine thousand six hundred		1 (5C6a)
11b	12 × 800 and 8 × 1200		1 (5C6a)
12a	10:56 (or 10.56 am)		1 (5S1)
12b	15 minutes		1 (5S1)
12c	10:22 (or 10.22 am)		1 (5S1)
13a	36		1 (5C5d)
13b	2 squared + 4 squared = 20 (since 2 ² = 4 and 4 ² = 16)		1 (5C5d)

Qu.	Requirement	Guidance	Marks (Domain)
14	Number of loaves given away = 1.5 × 4 = 6 If she sold two thirds, then one third were given away, so Number baked ÷ 3 = 6 Number baked = 6 × 3 = 18 loaves	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (6C8)
15	4 ÷ 2 = 2		1 (6R3)
16a	$\frac{4}{5} \times \frac{2}{3} = \frac{4 \times 2}{5 \times 3} = \frac{8}{15}$		1 (6F5a)
16b	$\frac{1}{9} + \frac{1}{3} + ? = \frac{11}{18}$ can be written as: $\frac{2}{18} + \frac{6}{18} + ? = \frac{11}{18}$ $? = \frac{3}{18} = \frac{1}{6}$		1 (5F4)
17	False. 12 is a common multiple of 4 and 6.		1 (6C5)
18	R = A ÷ 3 and A = 3R		1 (6A1)
19	$1 - \frac{1}{9} = \frac{8}{9}$ $\frac{8}{9} \div 3 = \frac{8}{9 \times 3} = \frac{8}{27}$	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (6F5b)
20	You need two bottles for each litre, so $\begin{array}{r} £2.67 \\ \times 2 \\ \hline £5.34 \end{array}$ 1 litre of paint costs £5.34 $\begin{array}{r} £5.34 \\ \times 4 \\ \hline £21.36 \end{array}$ 4 litres cost £21.36 Or 4 litres = 4000 ml So they used 4000 ÷ 500 = 40 ÷ 5 = 8 bottles. $\begin{array}{r} £2.67 \\ \times 8 \\ \hline £21.36 \end{array}$	2 marks for correct answer, otherwise 1 mark for a correct method.	2 (6M9)

Set B Paper 1

Qu.	Requirement	Guidance	Marks (Domain)
1	1016		1 (3N2b)
2	646		1 (4C7)
3	4		1 (4C6a)
4	0		1 (4C6b)
5	828		1 (3C1)
6	$\begin{array}{r} 53 \\ \times 5 \\ \hline 265 \end{array}$		1 (4C7)