GCSE MATHEMATICS
MARK SCHEME – Specimen Paper (Linear) Foundation Paper 2

Questions	Working	Answer	Mark	Notes
1 (a) (i)	See diagram	10	**2**	B1 cao
(ii)		16		B1 cao
(b)		Correct lines	**2**	B1 for each correct line
(c)		14	**2**	B2 cao (B1 for 13 or 15)
2 (a)		130	**1**	B1 ± 2 Could be written on diagram
(b)		2.8	**1**	B1 ± 0.2 Could be written on diagram
(c)		Arrow at 38	**1**	B1 allow ± half graduation
(d)		Arrow at 5.4	**1**	B1 allow ± half graduation
3 (i)		Cone	**2**	B1 accept circular pyramid (ignore spelling)
(ii)		Cube		B1(accept cuboid)
4 (a)	Red 𝍸 IIII 9 Blue 𝍸 5 Yellow IIII 4 Green II 2		**3**	M1 for attempt to tally A1 for 1 frequency correct or all tallies correct A1 for all frequencies correct (accept if /20)
(b)		2	**1**	B1 ft
(c)		Red or 9	**1**	B1 ft
5 (a)	£5 – (£2.05 + £2.20)	£0.75, 75p	**4**	M1 £2.05 + £2.20 A1 for £4.25 M1 for £5 – "£4.25" A1 cao
(b)	£20 ÷ £2.60 = 7.6923…	7	**2**	M1 for £20 ÷ 2.60 or sight of digits 769 A1 for 7
(c)	$\frac{1}{4}$ of 20	5	**2**	M1 $\frac{1}{4}$ of £20 oe A1 cao SC B2 for 15

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6 (a) (i)		8	**2**	B1 cao
(ii)		22		B1 cao
(b)	× 2		**1**	B1 for explaining a suitable method of continuing the pattern
(c)		22	**3**	B3 cao B2 cao for 18,22 seen (B1 for one only ft from their "18") B1 for correct diagrams
7 (i)		Scalene	**3**	B1 for scalene (accept explanation)
(ii)	See diagram	63°		B1 61-65°
(iii)		Acute		B1 for acute (ignore spelling)
8 (a)	3742 – 3580 = 162 "162" × 56p	90.72	**4**	M1 3742 – 3580 A1 162 M1 for "162" × 56p or 9072 seen A1 cao **Or** M1 for 3580 × 56 (or digits 20048(0) seen) or 3742 × 56 (or digits 209552 seen) A1 if one correct M1 for "209552" – "200480" or 9072 seen A1 cao
(b)	$\frac{1}{5} \times 165 = 33$ 165 – "33"	132	**3**	M1 $\frac{1}{5} \times 165$ (or M1 for $\frac{4}{5}$ seen) A1 for 33 (or M1 for $\frac{4}{5} \times 165$) A1 for 132 ft
(c) (i)		60	**2**	B1 for 60 (± 1)
(ii)		150		B1 for 150 (± 3)

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9 (a)		10	**1**	B1 accept –10
(b)		10	**1**	B1 accept –10
(c)		July	**1**	B1 accept 4
(d)		–11	**1**	B1 cao
10 (a)		1.5 – 2.0	**1**	B1 for height: 1.5 – 2.0
(b)	Height of man × "2.5"	3 – 6	**3**	B3 for height between 3m – 6m inclusive (B2 for multiplying (a) by a number between 2 and 3 inclusive) (B1 for multiplying (a) by a number cannot be implied)
11 (a)	0 | 6 8 8 9 1 | 2 2 4 5 5 6 6 8 8 2 | 1 1 1 2 5 3 | 2 4	Diagram	**2**	B2 for fully correct (B1 for 2 errors in leaves or omitted key or unordered)
(b)		16	**2**	B1 for putting in order A1 cao
12 (a) (i)	180 – 35	145	**2**	B1 cao
(ii)		Sum of angles on a straight line equals 180°		B1 for (angles in a straight) **line** (add to) **180°**
(b) (i)	180 – 120 – 35	25	**2**	B1 cao
(ii)		Sum of angles in a triangle is 180°		B1 for (**angle**s in a) **triangle** (add to) **180°**
13 (a)	1 1 2 2 2 3 4 4 4 4	2.5	**2**	M1 for ordering ages correctly A1 cao
(b)	4 – 1	3	**1**	B1 cao
14 (a)		$2p$	**1**	B1 accept $2 \times p$ or $p2$ or $p \times 2$ or $p + p$
(b)		$p - 7$	**1**	B1 cao
15	$p + 3q + 3p + 5q$	$4p + 8q$	**2**	B2 accept in reverse formation accept $p4$, $4 \times p$ etc (B1 for $4p$ or $8q$ seen)

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16	$360^o \div 18$ (= 20) Sector angles: F = 40; T = 120; P = 200; Correct sectors labelled correctly Use overlay	Angles drawn, labelled	**4**	B4 for fully correct and labelled pie chart (B3 for all angles correct or a labelled pie chart with 2 angles correct) (B2 for labelled pie chart with 1 correct angle) (B1 for $360^o \div 18$ or 20 seen or implied)
17 (a) **(b)** **(c)**		12.30 pm 40	**1** **1** **2**	B1 for 12:30 (± 5 min) B1 for 40 (± 2 km) B1 horizontal. line from (4, 50) to (5, 50) B1 line from (5, 50) to (8, 0) or horizontal translation of it SC B1 for any journey ending at (8, 0)
18		Correct prism	**2**	B2 for a reasonable 3-D drawing in perspective B1 for attempt at 3-D drawing
19	$60 \div 3 = 20$ 20 – 11	9	**2**	M1 for $\div 3$ or 20 seen or $3(x+11)$ A1 cao
20	0.3 + 0.25 1 – 0.55	0.45 oe	**2**	M1 for 1 – (0.3 + 0.25) A1 for 0.45 oe [SC:B1 for 0.72]

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Questions	Working	Answer	Mark	Notes
21	$8.80 \times \frac{17.5}{100} = 1.54$ 8.80 + 1.54 = 10.34 650 × "10.34" 7800 + 6084	£6721	**4**	M1 for $8.80 \times \frac{17.5}{100}$ or digits 1.54 seen or 8.80 × 1.175 (oe) (Award M1 for 10%, 5% and $2\frac{1}{2}$% correctly calculated) M1 for 8.80+"1.54" dep on previous M1 (M1 dep) M1 for 650 × "10.34"or digits 6721 seen A1 cao **Alternative** M1 for 650 × 8.8(0) or digits 5720 seen M1 for "5720" $\times \frac{17.5}{100}$ or 1001 seen (M2 for "5720" × 1.175 oe seen) (Award M1 for 10%, 5% and $2\frac{1}{2}$% correctly calculated) M1 for "5720" + "1001" (dep on both previous Method marks) or digits 6721 seen A1 cao

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22 **(a)**	$4y + 12 = 6$ $4y = -6$	-1.5	**3**	B1 for $4y + 12$ or $y + 3 = 6 \div 4$ M1 for isolating $4y$ A1 oe
(b)	$f - g = 3h$ or $\frac{f}{3} = \frac{g}{3} + h$	$\frac{f-g}{3}$ oe	**2**	M1 for $f - g = 3h$ or $\frac{f}{3} = \frac{g}{3} + h$ A1 cao
23	2.5 → 40.6 (25) 2.6 → 43.5 (76) 2.7 → 46.6 (83) 2.8 → 49.9 (50) 2.9 → 59.3 (89) 2.85→ 51.6 (49)	2.8	**4**	B2 for a trial between 2 and 3 exclusive (B1 for a trial at 2 or 3) B1 for a trial between 2.8 and 2.9 exclusive B1 (dep on at least one previous B1) for 2.8 NB trials should be evaluated to at least 1 dp truncated or rounded

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24 (a)	$48 \div (5 + 4 + 3)$ "4" × 3	12	**3**	M1 for $48 \div (5 + 4 + 3)$ M1 (dep) for "4" × 3 or "4"×5 or "4"×4 A1 cao [SC: B2 for 20:16:12 only]
(b)	$1.24 \times \frac{95}{100} = 0.1178$ $1.24 + 0.1178 = 1.3578$	1.36 or 1.4	**4**	M1 for $1.24 \times \frac{95}{100}$ or 0.11(78) seen M1 (dep) for 1.24 +" 0.11(78)" A1 for 1.4 or better B1 (indep) for rounding their answer correctly to 1 or 2dp OR M1 for $1.24 \times \frac{100 + 9.5}{100}$ M1 (dep) for 1.24 ×"1.095" or 0.0124 ×"109.5" A1 for 1.4 or better B1 (indep) for rounding their answer correctly to 1 or 2dp

Question 6(b)

Count all the evens until you get to the 100^{th} even number

Double 100

Write down the even numbers and count the 100^{th}

Go up in two's

Add on 2 each time

100 + 100

Keep counting missing a number

By taking out all the odds

Go up in order where all the numbers end in 2, 4, 6, 8, 0

Do your 2 times table

Numbers in the 2 times table

Keep going 2 numbers forward

Add 2 to the previous term

10 × 20

10 × 10

The tenth even number times by 10

Add a zero to the tenth even number

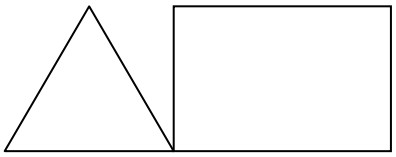
Add 1 to the 100^{th} odd number

Take 1 away from the 100^{th} odd number

Count on until you get the 100^{th} even number

Question 17

1



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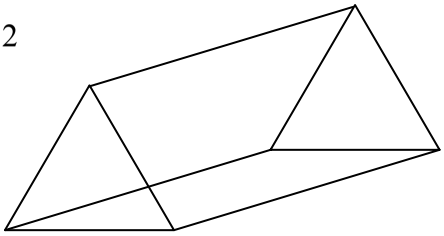

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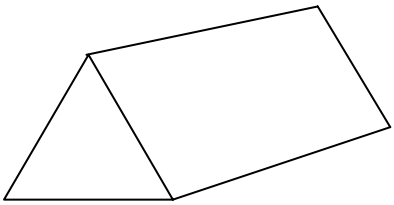

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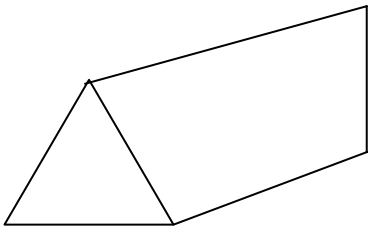

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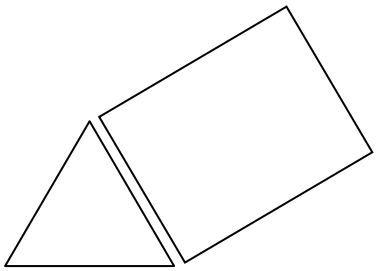

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