Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

MATHEMATICS **0580/12**

Paper 1 (Core) **October/November 2017**

MARK SCHEME

Maximum Mark: 56

Published

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Abbreviations

cao correct answer only
dep dependent
FT follow through after error
isw ignore subsequent working
oe or equivalent
SC Special Case
nfww not from wrong working
soi seen or implied

Question	Answer	Marks	Partial marks
1	14 027	**1**	
2	−3	**1**	
3	1	**1**	
4	[0].00517	**1**	
5	$\frac{31}{50}$, $\frac{5}{8}$, 0.63, 64%	**2**	**B1** for 3 in correct order or **M1** for 0.62 or 62% **and** 0.625 or 62.5% or 4 fractions with a common denominator
6	10.1[0]	**2**	**M1** for [4.5 +] (7 × [0].8) or 450 + 7 × 80
7	2.1	**2**	**B1** for 2.08 or 2.079… or 2.10
8(a)	2, 3, 4, 6	**1**	
8(b)	27, 36 cao	**1**	
9	[x =] 60 [y =] 40	**2**	**B1** for each or for two numbers that add to 100
10	2.5	**2**	**M1** for 2200 or 0.055 seen or **SC1** for answer figs 25
11	32	**2**	**M1** for $\frac{1}{2} \times 33 \times h = 528$ oe
12(a)	Positive	**1**	
12(b)	No correlation oe	**1**	
13	[0].35	**2**	**M1** for 1 – (0.15 + 0.3 + 0.2)
14	361.5	**1**	
	362.5	**1**	If zero scored, **SC1** for both correct but reversed

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Question	Answer	Marks	Partial marks
15	52.2 or 52.19 to 52.20	**2**	**M1** for sin […=] $\frac{6.4}{8.1}$ oe
16(a)	(2, 5)	**1**	
16(b)	Point plotted at (7, −2)	**1**	
16(c)	Isosceles cao	**1**	
17(a)	9	**1**	
17(b)	Midpoint marked	**1**	
17(c)	Perpendicular line drawn	**1**	
18	120 nfww	**3**	**M2** for $180 - \frac{360}{6}$ oe $\frac{180\times(6-2)}{6}$ or **M1** for $\frac{360}{6}$ soi by 60 or 180 × (6 − 2) soi by 720
19	Correct ruled net	**3**	**B2** for 4 more correct faces in correct position or **B1** for 2 or 3 more correct faces in correct position
20(a)	$3\frac{2}{3}$ cao	**1**	
20(b)	$\frac{3}{12}$[and $\frac{5}{12}$] oe	**M1**	For correct method to find common denominator e.g. $\frac{12}{48}$ and $\frac{20}{48}$
	$\frac{2}{3}$ cao	**A1**	
21	[y =] 0.5x + 2 oe	**3**	**M2** for [y =] 0.5x + c oe $c \neq 2$ or **M1** for $\frac{\text{rise}}{\text{run}}$ and **B1** for kx + 2, $k \neq 0$
22(a)(i)	36	**1**	
22(a)(ii)	Add 7 oe	**1**	
22(b)	4n – 2 oe	**2**	**M1** for 4n + k, $k \neq -2$ oe
23(a)	$\frac{5}{14}$ or 0.357 or 0.357…	**2**	**M1** for 7 – 2 = 11n + 3n oe or better
23(b)	18	**2**	**M1** for p – 3 = 3 × 5 or $\frac{p}{5} = 3 + \frac{3}{5}$

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Question	Answer	Marks	Partial marks
24(a)	6	**2**	**M1** for $\frac{15}{12.5}$ or $\frac{12.5}{15}$ or $\frac{12.5}{5}$ or $\frac{5}{12.5}$ soi
24(b)	10	**2**	**M1** for $\frac{12.5}{15} \times 12$ or $12 \div \frac{15}{12}$ soi

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