

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

Cambridge International General Certificate of Secondary Education

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## **MARK SCHEME for the October/November 2014 series**

### **0444 MATHEMATICS (US)**

**0444/13**

Paper 1 (Core), maximum raw mark 56

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Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

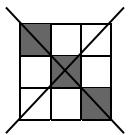
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**Abbreviations**

- 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

Qu.	Answers	Mark	Part Marks
1	$\frac{13}{100}$ oe	1	
2 (a)	304 620	1	
(b)	305 000	1FT	
3 (a)	2	1	
(b)		1	
4 (a)	5	1	
(b)	0.75 oe	1	
5 (a)	23	1	
(b)	-15.5	1	
6 (a)	-2	1	
(b)	1	1	
7	$\frac{2}{15}$ cao	2	M1 for $\frac{12}{15} - \frac{10}{15}$ oe
8	$\frac{y+1}{6}$ oe	2	B1 for $y + 1 = 6x$ or $\frac{y}{6} = x - \frac{1}{6}$ If B0 SC1 for $\frac{y-1}{6}$ or $\frac{y}{6} + 1$
9	0.0155, $\frac{1}{10}$ , 0.1055, 15%, $\frac{1}{5}$	2	B1 for 0.2, 0.15 and 0.1 seen or 1.55%, 20%, 10% and 10.55% seen or SC1 for four in correct order
10	$2.4 \times 10^8$	2	B1 for 240 000 000 oe or B1 for $k \times 10^8$ or $2.4 \times 10^k$

11	30	2	M1 for $2x + 3x + 4x + 90 = 360$ oe
12	70	2	M1 for $56 \div 0.8$ oe
13 (a)	1440	2	M1 for $18 \times 10 \times 8$
(b)	1700	1	
14 (a)	$6j - k$	2	B1 for $6j \pm ak$ or $bj - k$ ( $a$ and $b \neq 0$ )
(b)	$5(p + 2)$	1	
15 (a)	12	1	
(b)	60	1	
(c)	Irrational number between 1 and 2	1	
16	9.5 or $\frac{19}{2}$	3	M2 for $2x = (8 \times 3) - 5$ or better oe or M1 for $2x + 5 = 8 \times 3$ or better
17 (a)	16 [kg]	1	
(b)	Positive	1	
(c) (i)	Ruled line of best fit	1	
(ii)	Correct reading from ruled line	1FT	
18 (a)	Correct bisector with two pairs of correct arcs	2	B1 for correct bisector without arcs
(b)	Correct ruled line with at least one pair of relevant arcs	2	B1 for correct line without arcs or incorrect arcs
19 (a)	71.7	2	B1 for $90^\circ$ seen
(b)	13	2	M1 for $\sqrt{12^2 + 5^2}$
20 (a)	Trapezoid	1	
(b)	$64^\circ$	1	
(c)	24 <b>nfw</b>	3	B1 for 7, 5 and 4 seen M1 for $0.5 \times \text{their } 4 \times \text{their } (5 + 7)$
21 (a) (i)	-5, 1, 7	2	B1 for any two correct
(ii)	-2, 0, 2, 4	1	May be indicated on mapping diagram
(b)	one to many oe	1	