**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**International General Certificate of Secondary Education**

## MARK SCHEME for the May/June 2014 series

# 0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

**0607/12** Paper 1 (Core), maximum raw mark 40

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

| | | | | |
|---|---|---|---|---|
| **1** | **(a)** | 70 | **1** | |
| | **(b)** | 17 | **2** | **M1** for 20 or 3 seen |
| | **(c)** | 23 cao | **1** | |
| | **(d)** | $3.07 \times 10^5$ | **1** | |
| **2** | | 50 : 50 | **1** | |
| **3** | **(a)** | $3x + 3y$ or $3(x + y)$ | **2** | **M1** for $x + 2x + 3y$ |
| | **(b)** | 18 | **2FT** | **M1** for *their* $3 \times 2$ + *their* $3 \times 4$ or $8 + 4 + 6$ seen |
| **4** | | UQ = 9<br>LQ = 6 | **2** | **B1** for each<br>or **SC1** if reversed<br>or **SC1** for a correctly ordering list |
| **5** | **(a)** | Correct line drawn | **1** | |
| | **(b)** | (1, –2) | **1FT** | **FT** *their* **(a)** |
| **6** | | 36<br>$cm^3$ | **2**<br>**1** | **M1** for $3 \times 4 \times 3$ oe |
| **7** | | C D B A | **2** | **M1** for three containers correctly ordered in the list<br>or correctly converting all to a common unit<br>or **SC1** for ordered list in reverse |
| **8** | **(a)** | 6 and 8 | **2** | **B1** for each in correct order |
| | **(b)** | $2x + 3$ | **2** | **B1** for $2x + j$ or $kx + 3$, $j$ and $k \neq 0$ |
| **9** | **(a)** | $1\frac{1}{24}$ or $\frac{25}{24}$ | **2** | **M1** for multiple of 24 in both denominators |
| | **(b)** | $\frac{1}{4}$ | **2** | **M1** for $\frac{6}{24}$ or better seen |
| | **(c)** | $1\frac{17}{24}$ or $\frac{41}{24}$ | **3** | **M2** for $2 - \frac{7}{24}$<br>or<br>**M1** for $\frac{27}{8}$ or $\frac{5}{3}$<br>and<br>**M1** for multiple of 24 in both denominators |

| | | | | |
|---|---|---|---|---|
| **10** | **(a)** | $7p(q + 2 – t)$<br>Final answer | **2** | **B1** for $7(pq + 2p – pt)$ or $p(7q + 14 – 7t)$ |
| | **(b)** | $8b – 32a$ or $8(b – 4a)$<br>Final answer | **2** | **B1** for $8b$ or $– 32a$<br>or **M1** for $10b – 30a$ or $– 2a – 2b$ |
| **11** | | Correct sketch | **2** | **M1** for curve through two of (–1, 1), (0, 0), (3, 2)<br>or **SCI** for correct sketch of $f(x + 2)$<br>or $f(x) + 2$ |
| **12** | **(a)** | 300 | **1** | |
| | **(b)** | 13 | **3** | **M2** for $\sqrt{5^2 + 12^2}$ or better, e.g. $\sqrt{169}$<br>or **M1** for $[AC^2] = 5^2 + 12^2$ or 90° seen at $B$ |