# MARK SCHEME for the October/November 2013 series

## 0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

### 0607/01 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 October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

| 1 | (a) | 8570 | 1 | |
| --- | --- | --- | --- | --- |
| | (b) | 8600 | 1 | |
| 2 | | – | 1 | |
| 3 | | $5^2$  $3^3$  $2^5$ accept any clear indication | 2 | **B1** for 2 of 32, 25, 27 seen |
| 4 | | Correct line drawn | 1 | |
| 5 | (a) | 90 | 1 | |
| | (b) (i) | $\dfrac{1}{4}$ | 1 | |
| | (ii) | 75% | 1FT | **FT** *their* $\dfrac{1}{4}$ |
| 6 | (a) (i) | 6 | 1 | |
| | (ii) | 71 | 1 | |
| | (b) | 4.1 | 3 | **M1** for $\sum fx$ (= 41)  **M1** for *their* 41 ÷ 10 |
| 7 | (a) | 90° | 1 | |
| | (b) | 90° | 1 | |
| | (c) | Chord | 1 | |
| 8 | (a) | $x = 0$ oe  $y = 0$ oe | 1  1 | |
| | (b) (i) | $-2 < x < 1$ | 1 | Condone strict inequalities |
| | (ii) | $0 < f(x) < 2$ | 1 | |
| | (iii) | Correct translation | 1 | |
| 9 | (a) | $\dfrac{12}{15}$ oe | 1 | |
| | (b) | 20 | 2 | **M1** for *their* $\dfrac{3}{15} \times 100$ soi |

| 10 | (a) | 7 | 2 | **M1** for correct first step |
|---|---|---|---|---|
| | (b) | 3 | 3 | **M1** for correct first step <br> **and M1 FT** for correct second step |
| | (c) | Any 2 integers a < 2 | 2 | **B1** each |
| 11 | (a) | (3, 2) | 1 | |
| | (b) (i) | 3 | 2 | **M1** for $y$ increase/$x$ increase |
| | (ii) | $y = 3x - 7$ | 2FT | **B1FT** for $y$ = *their* $3x + k$ <br> **or** for $y = ax - 7$, $a \neq 0$ <br> **or** for *their* $3x - 7$ |
| | (c) | $y = 3x + c$ | 1FT | **FT** *their* **(b)(i)**, $c \neq$ *their k* |
| 12 | (a) | $\dfrac{12}{9}$ oe | 1 | |
| | (b) | $\dfrac{12}{15}$ oe | 1 | |