MARK SCHEME for the May/June 2014 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS
0607/53 Paper 5 (Core), maximum raw mark 24

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) (i) 
\[ \frac{1}{1 + \frac{2}{3}} \]  
(1) seen as \[ \frac{1}{3} \]  

(ii) 
\[ \frac{1}{1 + \frac{3}{5}} \]  
(1) seen as \[ \frac{1}{5} \]  

(iii) 
\[
\begin{array}{cccccc}
1 & 1 & 2 & 3 & 5 & 8 \\
2 & 3 & 5 & 8 & 13 & 21 \\
3 & 8 & 13 & 21 & 34 & \\
\end{array}
\]  
(2) B1 each fraction  

(iv) 
[Numerator =] denominator of 7th or previous fraction  
or added the two previous numerators  
or denominator of (previous fraction + 1) oe  

[Denominator =] numerator + denominator of 7th or previous fraction  
or added the two previous denominators  
or numerator of (previous fraction + 1) oe  

(b) (i) 
34, 55, 89, 144, 233  
(2) B1 FT from incorrect 34  
or M1 adding previous 2 terms 3 times  
C opportunity  

(ii) 
\[ \frac{144}{233} \]  
(1FT) FT from their 144, 233 in (b)(i)  

### 2 (a) 
\[ \frac{2}{3} \]  
\[ \frac{6}{5} \]  

(b) 
\[ \frac{22}{21} \]  
(isw)  

(c) 
[Numerator =] 2 \times previous denominator oe  

(d) 
[Denominator =] numerator + denominator of previous fraction oe  

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### Mark Scheme

#### Syllabus Paper

| 3 (a) | 21 
| 19 |
| 57 |
| 40 |

#### (b)

| [Numerator =] $3 \times 19 = 57$ or $3 \times$ previous (4<sup>th</sup> term) denominator |
| [Denominator =] $21 + 19 = 40$ or previous (4<sup>th</sup> term) numerator + previous (4<sup>th</sup> term) denominator |

| 4 | $\frac{4}{1}$, $\frac{4}{5}$, $\frac{20}{9}$, $\frac{36}{29}$ isw |

| 3 (a) | Communication seen in 3 or more of 1(a)(i), 1(b)(i), 2(a), 3(a), 4 |

| 2 | B1 each fraction FT their $\frac{21}{19}$ C opportunity |
| 2 | B1 each statement |
| 3 | B2 for two of $\frac{4}{5}$, $\frac{20}{9}$, $\frac{36}{29}$ B1 for one of $\frac{4}{5}$, $\frac{20}{9}$, $\frac{36}{29}$ C opportunity |
| 2 | C1 for 2 |