## ncfe.

## Sample Mark Scheme: P000350

NCFE Functional Skills Qualification in Mathematics at Level 1 (501/2325/7)

| Activity 1 |  | Marks |
| :---: | :---: | :---: |
| 1A1 | Cambridge | 2 |
|  | Peterborough identified as 20\% | 1 |
|  | Cambridge identified (award both marks for Cambridge as final answer) | 1 |
| 1A2 | 1/3 | 3 |
|  | Cambridge, London, Oxford, York OR 4 (places) seen OR 25\% seen | 1 |
|  | 4/12 or their value/12 seen (accept evidence of their/12 simplified, for example, $1 / 4$ from their 3/12) | 1 |
|  | CAO (correct answer only) 1/3 | 1 |
| 1B1 | 2:3 | 2 |
|  | 10:15 (accept 10 and 15 seen) | 1 |
|  | CAO 2:3 | 1 |
| 1 B 2 | 20 (\%) | 3 |
|  |  |  |


| Activity 1 |  |  | Marks |
| :---: | :---: | :---: | :---: |
|  | 7/35 OR 1/5 OR 0.2 (accept 35/7 (=5)) |  | 1 |
|  | 7/35*100 OR $0.2 * 100$ OR 1/5*100 OR equivalent |  | 1 |
|  | CAO 20 (\%) |  | 1 |
| 1B3 | 0.4 or . 40 or 0.40 |  | 2 |
|  | 40 (\%) seen OR 100-35-25 OR 100-60 |  | 1 |
|  | CAO 0.4 (condone display as 0.40 but do not accept $0.4 \%, 0.4$ percent) |  | 1 |
|  |  | Total marks: | 12 |


| Activity 2 |  | Marks |
| :---: | :---: | :---: |
| 2A1 | 31.56 (km) | 1 |
|  | CAO 31.56 (km) | 1 |
| 2A2 | 1.03 (seconds) | 2 |
|  | 32.71-31.68 seen OR 32.71 and 31.68 specifically identified | 1 |
|  | CAO 1.03 (seconds) | 1 |
| 2B1 | 30 (minutes) | 2 |
|  | 150 (minutes) seen OR 2.5/5 ( $=0.5$ hours) | 1 |


| Activity 2 |  | Marks |
| :---: | :---: | :---: |
|  | 30 (minutes) accept 0.5 hour or $1 / 2$ hour but appropriate units required | 1 |
| 2B2 | 14 (minutes) | 3 |
|  | 720/60 or 12 seen (calories per minute) | 1 |
|  | 168/12 OR 168 / their calories per minute (award both method marks for 168/720*60) | 1 |
|  | CAO 14 (minutes) | 1 |
| 2B3 | 33.33, 33.3, 33 (\%) | 2 |
|  | $1 / 3$ (in the gym) | 1 |
|  | CAO 33.33, 33.3, 33 (\%) | 1 |
| 2 C 1 | (£) 505 | 2 |
|  | $300+40+15+(2 * 50)+\left(2^{*} 25\right)$ or equivalent | 1 |
|  | CAO (£) 505 | 1 |
| 2 C 2 | (£) 215 with valid check | 4 |
|  | 720 OR 30*12*2 OR 30*24 | 1 |
|  | 720-505 (accept subtraction using their values) | 1 |
|  | CAO (£) 215 | 1 |
|  | Check using reverse calculation, for example, $215+505=720$ FT (follow through) | 1 |


|  | Marks |
| :---: | :---: |
| Total marks: | 16 |


| Activity 3 |  | Marks |
| :---: | :---: | :---: |
| 3A | 15.2 (km/hour) with valid check | 4 |
|  | 15 (minutes) $=0.25$ (hours) OR $4 \times 15=1$ hour/60 mins OR 3.8/15 | 1 |
|  | 3.8/0.25 OR 3.8/15*60 OR $4 \times 3.8$ | 1 |
|  | CAO 15.2 (km/hour) | 1 |
|  | Check using reverse calculation, for example, $15.2^{*} 0.25=3.8$ or $15.2 / 4=3.8$ FT | 1 |
| 3B1 | 123 | 2 |
|  | 615/5 or their value/5 | 1 |
|  | CAO 123 | 1 |
| 3B2 | 53 (may be seen in workings box) | 3 |
|  | 172 OR $43 * 4$ seen | 1 |
|  | 172-119 OR 43*4-119 OR 43*4-38-42-39 | 1 |
|  | CAO 53 (may be seen in workings box) | 1 |
| 3 C | $36 \mathrm{~m}^{2}$ or $360000 \mathrm{~cm}^{2}$ | 3 |
|  |  |  |


| Activity 3 |  | Marks |
| :---: | :---: | :---: |
| 240 (cm) converted to 2.4 (m) OR 15 (m) converted to 1500 (cm) |  | 1 |
| $2.4 * 15$ seen OR $240 * 1500$ (consistent units and correct values required) |  | 1 |
| CAO $36 \mathrm{~m}^{2}$ OR $360000 \mathrm{~cm}^{2}$ (correct units required) |  | 1 |
|  | Total marks: | 12 |
|  | Overall marks: | 40 |
|  | Pass mark: | 27 |

## Summary of Skills Standards and Coverage and Range

(Note: where task reference and marks are indicated against a skill standard they can be for any of the associated coverage and range statements)

| Skills standards | Total marks | Required weighting | Actual weighting | Coverage and range (can be covered across all skills standards) | Task reference | Marks awarded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Representing | 14 | 30-40\% | 35\% | a. understand and use whole numbers and understand negative numbers in practical contexts | $\begin{aligned} & 1 \mathrm{~B} 3,2 \mathrm{C} 1, \\ & 2 \mathrm{C} 2,2 \mathrm{C}, \\ & \mathbf{2 C 2} \end{aligned}$ | 5 |
| problems in familiar and unfamiliar contexts and |  |  |  | b. add, subtract, multiply and divide whole numbers using a range of strategies |  |  |
| situations, some of which are non-routine |  |  |  | c. understand and use equivalencies between common fractions, decimals and percentages | $\begin{aligned} & \text { 1A2, 1A2, } \\ & \text { 1B2, 1B2, } \\ & \text { 2A2, 2B3, } \\ & \text { 2B3 } \end{aligned}$ | 7 |
| necessary information to tackle the problem |  |  |  | d. add and subtract decimals up to two decimal places |  |  |
| R3 select mathematics in an organised way to find solutions |  |  |  | e. solve simple problems using ratio where one number is a multiple of the other | $\begin{aligned} & \text { 1B1, 3A, } \\ & 3 A, 3 A \end{aligned}$ | 4 |
|  |  |  |  | f. use simple formulae expressed in words for one- or two-step operations |  |  |


| Analysing <br> A1 apply mathematics in an organised way to find solutions to straightforward practical problems for different purposes <br> A2 use appropriate checking procedures at each stage | 13 | 30-40\% | 32.5\% | g. solve problems requiring calculation with common measures, including money, time, length, weight, capacity and temperature | $\begin{aligned} & \text { 2B1, 2B1, } \\ & \text { 2B2, 2B2, } \\ & \text { 2B2, 2C1, } \\ & \text { 2C2, 3A } \end{aligned}$ | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | h. convert units of measure in the same system | $\begin{aligned} & \text { 2A1, 3C, } \\ & \text { 3C, 3C } \end{aligned}$ | 4 |
|  |  |  |  | i. work out areas and perimeters in practical situations |  |  |
|  |  |  |  | j. construct geometric diagrams, models and shapes |  |  |
| Interpreting <br> I1 interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations | 13 | 30-40\% | 32.5\% | k. extract and interpret information from tables, diagrams, charts and graphs | $\begin{aligned} & \text { 1A1, 1A1, } \\ & \text { 1A2, 1B1, } \\ & \text { 1B2 } \end{aligned}$ | 5 |
|  |  |  |  | I. collect and record discrete data and organise and represent information in different ways |  |  |
|  |  |  |  | m. find mean and range | $\begin{array}{\|l\|} \hline \text { 2A2, 3B1, } \\ \text { 3B1, 3B2, } \\ \text { 3B2, 3B2 } \\ \hline \end{array}$ | 6 |
|  |  |  |  | n. use data to assess the likelihood of an outcome | 1B3 | 1 |
| Total marks: | 40 |  |  |  |  | 40 |

