## ncfe.

## Sample Mark Scheme: P000293

NCFE Functional Skills Qualification in Mathematics at Level 2 (501/2324/5)

| Activity 1 |  | Marks |
| :---: | :---: | :---: |
| 1A1 | CAO (correct answer only) £20 (units required) | 1 |
| 1A2 | CAO £16.15 (units required) | 1 |
| 1A3 | £21.25 (units required) | 2 |
|  | 17/0.8 or equivalent | 1 |
|  | CAO £21.25 (units required) | 1 |
| 1B1 | 197 with a valid check | 3 |
|  | 1576/8 OR their total/8 | 1 |
|  | CAO 197 | 1 |
|  | Check using reverse calculation, for example, 197* $8=1576$ FT (follow through) | 1 |
| 1 B 2 | (£) 1497.20 (2 decimal places required) | 2 |
|  |  |  |


| Activity 1 |  | Marks |
| :---: | :---: | :---: |
|  | 1576*0.95 OR 1576*95/100 (FT their value from 1B1) | 1 |
|  | (£) 1497.20 (2 decimal places required) FT | 1 |
| 1B3 | 116 | 2 |
|  | CAO 116 | 1 |
|  | Check using reverse calculation, for example, 116+151 = 267 FT | 1 |
| $1 \mathrm{C1}$ | 20 (\%) | 3 |
|  | 360-(90 + 120 + 78) OR 72 seen | 1 |
|  | 72/360*100 OR $0.2 * 100$ OR their/360*100 or equivalent | 1 |
|  | CAO 20 (\%) | 1 |
| 1 C 2 | 1/3 | 2 |
|  | 120/360 | 1 |
|  | CAO 1/3 | 1 |
| 1C3 | (£) 1458 | 3 |
|  | 9720/360 OR 27 seen OR 54/360 (=0.15) OR 0.15 OR $15 \%$ seen | 1 |
|  | 9720/360*54 OR 27*54 OR 9720*0.15 or equivalent | 1 |
|  | CAO (£) 1458 | 1 |

## Activity 1

Total marks:

| Marks |
| :---: |
| 19 |


| Activity 2 |  |  | Marks |
| :---: | :---: | :---: | :---: |
| 2A | 32 small and 91 large |  | 4 |
|  | 200/12 OR 16 (small pots) |  | 1 |
|  | CAO 32 (small) |  | 1 |
|  | $13^{*} 7$ seen OR (140-24)/15 ( $=7$ ) multiplied by 200/15 ( $=13$ ) or equivalent |  | 1 |
|  | CAO 91 (large) |  | 1 |
| 2B1 | 7.9 m OR 790 cm OR 7900 mm (units required) |  | 3 |
|  | 1.9 (m) OR 1.3 (m) seen OR 200-10 OR 140-10 or equivalent |  | 1 |
|  | $1.4+1.4+1.3+1.9+1.9$ seen or equivalent |  | 1 |
|  | CAO 7.9 m OR 790 cm OR 7900 mm (units required) |  | 1 |
| 2B2 | 240500 (cm ${ }^{3}$ ) |  | 3 |
|  | 185 cm OR 92.5 cm used as length |  | 1 |
|  | Method 185*130*10 OR $2(92.5 * 130 * 10)$ FT their sand rectangle lengths but must be internal volum |  | 1 |
|  | CAO $240500\left(\mathrm{~cm}^{3}\right)$ |  | 1 |
|  |  | Total marks: | 10 |


| Activity 3 |  | Marks |
| :---: | :---: | :---: |
| 3A1 | 28.26 ( $\mathrm{m}^{2}$ ) | 2 |
|  | 3.14*3*3 OR 3.14*9 | 1 |
|  | CAO 28.26 (m²) | 1 |
| 3 A 2 | 18.84 (m) | 2 |
|  | 3.14*6 OR 2*3.14*3 | 1 |
|  | CAO 18.84 (m) | 1 |
| 3B1 | 300 (ft²) | 3 |
|  | Area calculation seen, for example, 30*12 OR 10*6 OR 12*10 | 1 |
|  | 360-60 OR (30*12) - (10*6) or equivalent, for example, the sum of 3 correct rectangles | 1 |
|  | CAO 300 ( $\mathrm{ft}^{2}$ ) | 1 |
| 3B2 | 7.28 (kg) with $4 \times 2 \mathrm{~kg}$ packets selected (with one other amount seen) | 4 |
|  | 208*35 OR 7280 (g) | 1 |
|  | 7280/1000 OR 7.28 (kg) FT | 1 |
|  | Second correct and sufficient combination, for example, (£) 54.50 for $5(\mathrm{~kg})$ and $2 \times 2(\mathrm{~kg}) \mathrm{OR}(£) 57$ for $2 \times 5$ (kg) FT | 1 |
|  | CAO $4 \times 2 \mathrm{~kg}$ packets (cost £52) FT | 1 |

Total marks:

| Overall marks: | 40 |
| :---: | :---: |
| Pass mark: | 26 |

## 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 <br> R1 understand routine and non-routine problems in familiar and unfamiliar contexts and situations R2 identify the situation or problems and identify the mathematical methods needed to solve them R3 choose from a range of mathematics to find solutions | 13 | 30-40 \% | 32.5\% | a. understand and use positive and negative numbers of any size in practical contexts | $\begin{aligned} & \text { 1A3, 1B2, } \\ & \text { 2A, 3B2, } \end{aligned}$ | 4 |
|  |  |  |  | b. carry out calculations with numbers of any size in practical contexts, to a given number of decimal places |  |  |
|  |  |  |  | c. understand, use and calculate ratio and proportion, including problems involving scale | $\begin{aligned} & \text { 1A1, 1A2, } \\ & \text { 1A3, 1C1, } \\ & \text { 1C2, , 1C3, } \\ & \text { 3A1, 3A1, } \\ & \text { 3A2, 3A2, } \\ & \text { 3B2 } \end{aligned}$ | 11 |
|  |  |  |  | d. understand and use equivalencies between fractions, decimals and percentages |  |  |
|  |  |  |  | e. understand and use simple formulae and equations involving one or two step operations |  |  |
| Analysing <br> A1 apply a range of mathematics to find solutions A2 use appropriate checking procedures and evaluate their effectiveness at each stage | 13 | 30-40\% | 32.5\% | f. recognise and use 2D representations of 3D objects | $\begin{aligned} & \hline \text { 2A, 2A, 2A, } \\ & \text { 2B1, 2B1, } \\ & \text { 2B1, 2B2, } \\ & \text { 2B2, 2B2, } \\ & \text { 3B1, 3B1, } \\ & \text { 3B1, 3B2, } \\ & \hline \end{aligned}$ | 13 |
|  |  |  |  | g. find area, perimeter and volume of common shapes |  |  |
|  |  |  |  | h. use, convert and calculate using metric and, where appropriate, imperial measures |  |  |
|  |  |  |  | i. collect and represent discrete and continuous data, using ICT where appropriate | $\begin{aligned} & \text { 1C1, 1C1, } \\ & \text { 1C2, 1C3, } \\ & \text { 1C3, 3B2, } \\ & \text { 1B2 } \end{aligned}$ | 7 |
|  |  |  |  | j. use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate |  |  |


| Interpreting <br> I1 interpret and <br> communicate solutions to <br> multistage practical <br> problems in familiar and <br> unfamiliar contexts and <br> situations <br> I2 draw conclusions and <br> provide mathematical <br> justifications | $\mathbf{1 4}$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

