# NCFE Level 1 Functional Skills Qualification in Mathematics (603/5055/6)

Mark scheme: P002137 OS 25

Assessment window:   On demand

## v1. Post-standardisation

# Examiner Mark Scheme Guidance

## Information

This guidance is intended to support NCFE examiners in the valid, reliable and consistent application of the relevant mark scheme version, against learner evidence generated during their external assessment.

This mark scheme provides:

- the total marks available for each question
- the subject content reference for each mark
- example process/methods and evidence of the types of responses expected for each mark
- (once confirmed) the pass mark for the relevant assessment version.

This mark scheme **must** be used for paper-based and online marking of the assessment version indicated**.**

## Instructions and guidance on application

- All learners must receive the same treatment and should be marked fairly. Examiners must mark the first learner in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Learners must be rewarded for what they have shown they can do rather than penalised for things they have not done.
- Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Half marks must not be awarded.
- Examiners should be prepared to award zero marks if the learner's response is not worthy of credit according to the mark scheme.
- The mark scheme is a working document and may be added to at the standardisation to reflect valid alternative answers given by a learner.
- When in doubt regarding the application of the mark scheme to a learner's response, the Chief Examiner must be consulted.

This mark scheme provides the following information:

- section and activity information
- question number
- total marks available per question (top row, shaded) followed by
- attribution of individual marks per question
- problem solving (PS) and underpinning skill (UPS) attribution
- process/method or answers, as well as additional or alterative evidence; indicative of the subject content (SC) attribution
- any additional guidance, as required.

To support the valid, reliable and consistent marking of learner evidence, the following abbreviations are applied throughout the mark scheme:

| Annotation | Explanation and use |
|---|---|
| **FT** | Follow through marks are applied when there are earlier arithmetic mistakes in the method. |

| OE | Or equivalent marks are available for the justification of the answer being presented in a different form to the mark scheme i.e. 0.5 or ½. |
|---|---|
| **CAO** | Correct answer only. |
| **Their** | 'Their' refers to the learners' own derived values. |
| **Seen** | Seen refers to the requirement to see the stated value in the learner's response or working out. |
| **Imp** | Implied refers to the learner's response implying correct working out used but not seen. |
| **Brackets** | Indicates units are not required on final answers or for answers seen within working. |
| **BOD** | Benefit of doubt where learner handwriting may be difficult to interpret but previous working may indicate correct final answer. |
| **Shaded** | Indicates requirements for full marks to be awarded. |
| **Coloured SC box** | **On-screen only:** indicates where SC ref will appear out of order in the Learning Outcomes marking screen |

**Version Control**

Mark schemes are subject to version control. Examiners **must** ensure they have access to the latest version following each standardisation event.

Over time mark schemes will incorporate additional evidence captured and confirmed during standardisation events. Any additional evidence criteria will be captured in colour-coded text applicable to the dated standardisation event.
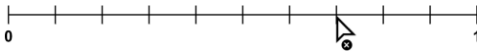
**Recording of marks**

*Paper-based:* Individual marks should be annotated in the 'Examiner' column in the learner script, added up and recorded at the end of each activity. The overall marks awarded for each learner should be clearly and legibly recorded in the grid on the front of the learner script.

*Online:* Onscreen marking tools (i.e. ticks, crosses) marks should be applied to indicate application throughout the learner script, in addition to marks being recorded numerically within the corresponding 'Learning Outcomes' box, indicated by the relevant Subject Content reference.

| Annotation | Explanation and use |
|---|---|
| **Tick** | Used to indicate correct values/method or final answer. |
| **Red highlight** | Used to indicate where the learner has made an error in either the value used or an incorrect calculation. |
| **Red line box** | Used to indicate where the learner may have made an error that has resulted in benefit of doubt being applied i.e. transposition of figures but previous working clearly shows otherwise. |

| Paper number: P002137 | | | | Version: 1.3 | Pass mark: 36 | |
|---|---|---|---|---|---|---|

**(Section A) Activity 1: Waterpark**      **(Non-calculator Test)**

| Q | Marks | UPS / PS | Process and Answer | Additional or Alternative Evidence (with guidance) | SC |
|---|---|---|---|---|---|
| **1 (a)** | **1** | **UPS** | 2.5 | CAO | N3b |
| **1 (b)** | **2** | **UPS** | 18 000 (gallons) | Award 2 marks if correct answer given | |
| | 1 | | 9 × 2 (× 1000) | OE Any full correct method<br>Brackets not required | N17 |
| | 1 | | 18 000 (gallons) | CAO | N3a |
| **1 (c)** | **3** | **PS** | See below | Award 3 marks if correct answer given from correct methods and accurate values <mark>if working seen</mark> | |
| | | | **Alternative method 1 – Calculates volume** | | |
| | 1 | | 80 × 80 × 72 | OE Any full correct method to find volume<br>Accept 80 × 80 × 80 or 512 000 | M23 |
| | 1 | | 460 800 (cm³) | CAO<br>460 800 implies 1st mark | M23 |
| | 1 | | No AND 460 800 (cm³) | OE No supported by correct working<br>FT their volume from correct method compared with 480 000<br>Accept Yes AND 512 000 only if 2nd mark not awarded | N1b |
| | | | **Alternative method 2 – Reverse process (Not expected at Level 1)** | | |
| | 1 | | 480 000 ÷ 80 ÷ 80<br>OR<br>480 000 ÷ 80 ÷ 72<br>OR<br>480 000 ÷ 72 AND 80 × 80<br>OR<br>$\sqrt{480000 \div 72}$ or $\sqrt{6666.6(666\ldots)}$ | OE Any full correct method to find figures to compare<br>Square root method is not expected at Level 1 but award mark if seen | M23 |
| | 1 | | 75 (cm deep)<br>OR<br>83(.333…) (cm wide)<br>OR<br>6666(.666…) and 6400 (cm²) | CAO<br>Implies 1st mark<br>Answers of 3dp or more are not expected at Level 1 but award mark if seen | M23 |
| | 1 | | No AND 75 (cm deep)<br>OR<br>No AND 83(.333…) (cm wide)<br>OR<br>No AND 6666(.666…) and 6400 (cm²) | OE No supported by correct working<br>FT their 75 or their 83(.333…) or their 6666(.666…) and 6400 from correct methods | N1b |
| **1 (d)** | **4** | **PS** | See below | | |
| | 1 | | 0.6 | CAO | N15 |
| | 1 | | 48 × their 0.6 | OE Any full correct method to convert temperature | N7 |

4

Level 1 – P002137-P25 onscreen v1.3

| | | | | FT their 0.6<br>Only accept use of 0.5 or 0.55 or 0.56 or 0.555<br>48 from 80 – 32 | |
|---|---|---|---|---|---|
| | 1 | | 28.8 (°C) | FT the correct answer to 48 × their 0.6 only using 0.5, 0.55 or 0.56 only if 1st mark not awarded<br>Only accept<br>24 from 48 × 0.5<br>26.4 from 48 × 0.55<br>26.8(8) from 48 × 0.56 | N11b |
| | 1 | | 29 (°C) | FT their answer to 48 × 0.55 or 48 × 0.56 or 48 × 0.555 correctly rounded to the nearest whole number from a minimum of 1dp seen<br><br>Award 1 mark only for 29 seen without working | N12 |
| 1 (e) | 5 | PS | Yes AND 21.45 (m)<br>OR<br>Yes AND 2145 (cm) and 2150 (cm)<br>OR<br>Yes AND 0.05 (m left) or 5 (cm left) | Award 5 marks if correct answer given from correct methods and accurate values if working seen | |
| | 1 | | 12.75 – 2.8 – 2.8<br>OR<br>1275 – 280 – 280 | OE Any full correct method to find side length of smaller square in consistent units | M22b |
| | 1 | | 7.15 (m)<br>OR<br>715 (cm) | CAO<br>7.15 (m) or 715 (cm) implies 1st mark | N11a |
| | 1 | | Their 7.15 + their 7.15 + their 7.15<br>OR<br>their 715 + their 715 + their 715<br>OR<br>21.5 – their 7.15 – their 7.15 – their 7.15<br>OR<br>2150 – their 715 – their 715 – their 715 | OE Any full correct method to find length of rope<br>FT Their 7.15 or 715 from correct method to find side length of square | M22b |
| | 1 | | 21.45 (m)<br>OR<br>2145 (cm)<br>OR<br>0.05 (m)<br>OR<br>5 (cm) | FT The correct answer using their 7.15 or 715 from correct method<br><br>21.45 or 2145 implies 1st 3 marks | N11a |
| | 1 | | Yes AND 21.45 (m)<br>OR<br>Yes AND 2145 (cm) and 2150 (cm)<br>OR<br>Yes AND 0.05 (m left) or 5 (cm left) | OE Yes supported by correct working<br>FT Their decision with their values from correct methods | N10 |

| | | (Section B) Activity 2: Delivering milk | | (Calculator Test) | |
|---|---|---|---|---|---|

| Q | Marks | UPS / PS | Process and Answer | Additional or Alternative Evidence (with guidance) | SC |
|---|---|---|---|---|---|
| 2 (a) | 1 | UPS | (£)0.85 | CAO | M20d |
| 2 (b) | 2 | UPS | See below | | |
| 2 (b) (i) | 1 | | $\frac{28}{40}$ or $\frac{7}{10}$ | CAO OE Fraction | H31 |
| 2 (b) (ii) | 1 | |  | Mark intention<br>FT their $\frac{7}{10}$ OE<br><br>Accept $\frac{5}{40}$ or 0.125, $\frac{7}{40}$ or 0.175 or $\frac{12}{40}$<br>or 0.3 only<br><br>Scale indication must follow their fraction if given. If scale indication is correct but doesn't follow their fraction, then neither mark can be awarded.'<br><br>Correct scale indication implies 1st mark, only if no fraction given' | H30a |
| 2 (c) | 3 | PS | No AND 8.18(4) (km) or 8.2 (km)<br>OR<br>No AND 8184 (m) and 8500 (m)<br>OR<br>No AND 13 709(.677…) (steps) or 13 710 (steps)<br>OR<br>No AND 0.64(393…) (stride length m) | Award 3 marks if correct answer given from correct methods and accurate values if working seen | |

**Alternative method 1 – Proportion then conversion**

| | | | | | |
|---|---|---|---|---|---|
| | 1 | | 13 200 × 0.62 (÷ 1000) or 8184 (m) | OE Any full correct method<br>Brackets not required | N17 |
| | 1 | | 8.18(4) (km)<br>OR<br>8500 (m) | CAO<br>Accept 8.2 (km)<br>8.18(4) or 8.2 implies 1st mark | M20a |
| | 1 | | No AND 8.18(4) or 8.2 (km)<br>OR<br>No AND 8184 (m) and 8500 (m) | OE No supported by correct working | N10 |

**Alternative method 2 – Conversion then proportion (Not expected at Level 1)**

| | | | | | |
|---|---|---|---|---|---|
| | 1 | | 0.00062 (km) | CAO<br>Answers to more than 3dp not expected at Level 1 but award if seen | M20a |
| | 1 | | Their 0.00062 × 13 200 or 8.18(4) | OE Any full correct method<br>FT Their 0.00062 from correct method for conversion<br>Accept 8.2 (km)<br>8.18(4) or 8.2 implies 1st mark | N17 |

| | 1 | | No AND 8.18(4) or 8.2 (km) | OE No supported by correct working | N10 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| | | | **Alternative method 3 – Reverse process (Not expected at Level 1)** | | |
| | 1 | | 8500 (m) | CAO | M20a |
| | 1 | | Their 8500 ÷ 0.62 or 13 709(.677…) (steps) OR Their 8500 ÷ 13 200 or 0.64(393…) (m) | OE Any full correct method FT Their 8500 from a correct method for conversion Answers to more than 3dp not expected at Level 1 but award if seen Accept 13 710 (steps) 13 709(.677…) or 13 710 or 0.64(393…) implies 1st mark | N17 |
| | 1 | | No AND 13 709(.677…) or 13 710 (steps) OR No AND 0.64(393…) (stride length m) | OE No supported by correct working | N10 |
| **2 (d)** | **3** | **PS** | 5000 (pints of milk) | Award 3 marks if correct answer given from correct methods and accurate values if working seen | |
| | 1 | | 21 000 ÷ (10 + 12 + 6 + 14) or 21 000 ÷ 42 or 500 (per minor gridline) OR 21 000 ÷ (2.5 + 3 + 1.5 + 3.5) or 2000 OR 21 000 ÷ 10.5 or 2000 (per major gridline) OR $\frac{10}{42}$ or 0.23(809…) or 0.24 or 23.8(095…)(%) or 24(%) | OE Any method to find a relationship between the total number of pints and the number of gridlines 10, 12, 6 and 14 are the number of minor gridlines for each person 42 is the total number of minor gridlines 2.5, 3, 1.5 and 3.5 are the number of major gridlines for each person 10.5 is the total number of major gridlines OE Fraction Infinite decimals are not expected at Level 1 but award mark if seen OE Way of recognising that Lily delivered 10 out of 42 of the total amount | H27c |
| | 1 | | 10 × their 500 OR 2.5 × their 2000 OR 10 × 21 000 ÷ 42 | OE Any full correct method to work out how many pints Lily delivered FT their 500 or their 2000 or their $\frac{10}{42}$ from **correct method.** lhs 1st line 'or 5000' , 2nd line 'or 7000' and 3rd line 'or 500' and rhs '500 implies 1st mark' 5000 implies 1st 2 marks. | H27c |
| | 1 | | 5000 (pints of milk) | CAO Accept 4998 from use of 23.8% / 0.238 or 4830 from use of 23% / 0.23 or 5040 from use of 24% / 0.24 | H27c |
| **2 (e)** | **4** | **PS** | No 1875 (bottles to be collected) OR No AND 16 800 (bottles delivered) | Award 4 marks if correct answer given from correct methods and accurate values if working seen | |
| | | | **Alternative method 1 – Working out the number of bottles needed to reach target** | | |
| | 1 | | $\frac{5}{8}$ | CAO May be seen or implied in subsequent working | N8a |

| | | | | | |
|---|---|---|---|---|---|
| | 1 | | 21 000 ÷ (1 + 6) or 3000 (glass bottles delivered) | OE Any full correct method to apply ratio | N17 |
| | 1 | | Their 3000 × 5 ÷ 8 or 1875 | OE Any full correct method to find fraction of their 3000<br>==FT their 3000 from 21 000 ÷ 7 or 21 000 ÷ 6 only==<br>1875 implies 1st two marks | N9 |
| | 1 | | No AND 1875 (bottles to be collected) | OE No supported by correct working | N1b |

**Alternative method 2 – Reverse process (Not expected at Level 1)**

| | | | | | |
|---|---|---|---|---|---|
| | 1 | | $\frac{5}{8}$ | CAO<br>May be seen or implied in subsequent working. | N8a |
| | 1 | | 1500 ÷ 5 × 8 or 2400 | OE Any full correct method<br>2400 implies 1st mark | N9 |
| | 1 | | Their 2400 × (1 + 6) or 16 800 | OE Any full correct method to apply ratio<br>FT their 2400 from an attempt to find fraction of 1500<br>Allow use of their value from 1500 ÷ 8 × 5<br>16 800 implies 1st two marks | N17 |
| | 1 | | No AND 16 800 (bottles delivered) | OE No supported by correct working | N1b |

**Alternative method 3 – Comparing fractions (Not expected at Level 1)**

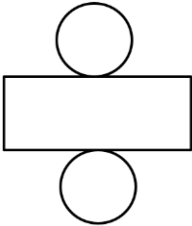| | | | | | |
|---|---|---|---|---|---|
| | 1 | | $\frac{5}{8}$ | CAO<br>May be seen or implied in subsequent working. | N8a |
| | 1 | | 21 000 ÷ (1 + 6) or 3000 (glass bottles delivered) | OE Any full correct method to apply ratio | N17 |
| | 1 | | $\frac{1500}{3000}$ or $\frac{1}{2}$ or $\frac{4}{8}$ | OE Fraction<br>Writing one number as a fraction of another is not expected at Level 1 but award if seen<br>FT their 3000 from an attempt to apply ratio<br>Accept use of their value from 21 000 ÷ 6<br>3000 seen in fraction or an OE fraction implies 2nd mark | N9 |
| | 1 | | No AND $\frac{4}{8}$ and $\frac{5}{8}$ | OE No supported by correct working<br>Accept any fractions OE that allow a direct comparison. | N1b |
| 2 (f) | 2 | UPS | See below | Award 2 marks for fully correct table | |
| | 1 | | 3 frequencies correct<br>OR<br>4 frequencies with 2 correct and which sums to 20 | ==20 does not need to be seen in total row== | H28a |
| | 1 | | Fully correct table | | H28a |

9

Level 1 – P002137-P25 onscreen v1.3

Additional Guidance

| Number of pints | Number of days |
|---|---|
| 10 – 19 | 1 |
| 20 – 29 | 9 |
| 30 – 39 | 5 |
| 40 – 49 | 5 |
| Total: | 20 |

| Q | Marks | UPS / PS | Process and Answer | Additional or Alternative Evidence (with guidance) | SC |
|---|---|---|---|---|---|
| **Activity 3: Moons in our solar system** | | | | **(Calculator Test)** | |
| **3 (a)** | **2** | **UPS** | 165 (moons) | Award 2 marks if correct answer given from correct methods and accurate values if working seen | |
| | 1 | | 220 × 3 ÷ 4 | OE Any full correct method | N9 |
| | 1 | | 165 (moons) | CAO | N9 |
| **3 (b)** | **2** | **PS** | 5212.2 (km) | Award 2 marks if correct answer given from correct methods and accurate values if working seen | |
| | 1 | | 3474.8 × 0.5 or 1737.4 OR 3474.8 × 1.5 | OE Any full correct method to find percentage of amount or percentage increase | N14 |
| | 1 | | 5212.2 (km) | CAO | N14 |
| **3 (c)** | **3** | **PS** | 3200 (mph) | Award 3 marks if correct answer given from correct methods and accurate values if working seen | |
| | 1 | | 240 000 | CAO May be seen in a calculation | N1a |
| | 1 | | Their 240 000 ÷ 75 | OE Any full correct method to apply formula Their 240 000 Accept use of 2 400 000, 204 000, 200 400, 200 040, 24 000, 20 400 or 20 040 | N5 |
| | 1 | | 3200 (mph) | FT the correct answer to their 240 000 ÷ 75 using values given in 2nd mark | N5 |

| 3 (d) | 4 | PS | See below | Award 4 marks if correct answer given from correct methods and accurate values if working seen | |
|---|---|---|---|---|---|
| | **Alternative method 1 – Working out total time** | | | | |
| | 1 | | 48 × 11 or 528 (mins) | OE Any full correct method to work out total time | N17 |
| | 1 | | 8.8 (hours) OR 8 hours 48 mins 480 (mins) OR 0.75 (hours) or 45 (mins) OR 8.75 (hours) or 8 (hours) and 45 (mins) OR 525 (mins) OR 0.8 (hours) or 48 (mins) | OE Any one correct time conversion FT their 528 from correct method to find total time if time conversion process seen 8.8 from 528 ÷ 60 480 from 8 × 60 525 from 8 × 60 + 45 0.8 from 528 ÷ 60 – 8 48 from 0.8 × 60 | M20e |
| | 1 | | 8.8 (hours) AND 8.75 (hours) OR 528 (mins) AND 525 (mins) OR 8 hours and 48 mins AND 8 hours and 45 mins | OE Any two comparable times Do not accept 0.8 and 0.75 or 48 mins and 45 mins | M20e |
| | 1 | | Yes AND (8).8 (hours) AND (8).75 (hours) OR Yes AND 528 (mins) AND 525 (mins) OR Yes AND 8 hours and 48 mins AND 8 hours and 45 mins | OE Yes supported by correct working FT their decision from correct method to apply proportion and from their values to compare Do not accept 0.8 and 0.75 or 48 mins and 45 mins | M20e |
| | **Alternative method 2 – Reverse process (Not expected at Level 1)** | | | | |
| | 1 | | 525 (mins) | Correct time conversion for $8\frac{3}{4}$ hours | M20e |
| | 1 | | Their 525 ÷ 11 OR their 525 ÷ 48 | OE Any full correct method to apply proportion FT their 525 from 8.75 × 60 if method seen | N17 |
| | 1 | | 47.7(272…) (mins per orbit) OR 10.9(375) (orbits) | OE Time Infinite decimals are not expected at Level 1 but award mark if seen | M20e |
| | 1 | | Yes AND 47.7(272…) (mins per orbit) OR Yes AND 10.9(375) (orbits) | OE Yes supported by correct working FT their decision from correct method to apply proportion and from their values to compare | M20e |

| 3 (e) | 2 | PS | See below | Award 2 marks if correct answer given from correct methods and accurate values <mark>if working seen</mark> | |
|---|---|---|---|---|---|
| | **Alternative method 1 – Working in kilograms** | | | | |
| | 1 | | (21.6 + 34.3 + 42.8 + 76.7 + 95.2 + 110.4) ÷ 6 or 63.5 (kg)<br>OR<br>381 ÷ 6 or 63.5 (kg) | OE Any full correct method<br>Allow 21.6 + 34.3 + 42.8 + 76.7 + 95.2 + 110.4 ÷ 6 if seen | H29a |
| | 1 | | No AND 63.5 (kg) | OE No supported by correct working | H29a |
| | **Alternative method 2 – Working in grams** | | | | |
| | 1 | | (21 600 + 34 300 + 42 800 + 76 700 + 95 200 + 110 400) ÷ 6 or 63 500 (g)<br>OR<br>381 000 ÷ 6 or 63 500 (g) | OE Any full correct method<br>Allow 21 600 + 34 300 + 42 800 + 76 700 + 95 200 + 110 400 ÷ 6 if seen | H29a |
| | 1 | | No AND 63 500 (g) and 65 000 (g) | OE No supported by correct working | H29a |
| | **Alternative method 3 – Reverse process working in kilograms (Not expected at Level 1)** | | | | |
| | 1 | | 21.6 + 34.3 + 42.8 + 76.7 + 95.2 + 110.4 or 381 (kg)<br>AND<br>65 × 6 or 390 (kg) | OE Any full correct method to apply reverse process | H29a |
| | 1 | | No AND 381 (kg) and 390 (kg) | OE No supported by correct working | H29a |

| | | | **Alternative method 4 – Reverse process working in grams (Not expected at Level 1)** | | |
|---|---|---|---|---|---|
| | 1 | | 21 600 + 34 300 + 42 800 + 76 700 + 95 200 + 110 400 or 381 000 (g) AND 65 000 × 6 or 390 000 (g) | OE Any full correct method to apply reverse process | H29a |
| | 1 | | No AND 381 000 (g) and 390 000 (g) | OE No supported by correct working | H29a |
| 3 (f) | 2 | UPS | $\frac{16}{100}$ AND 0.16 | Award 2 marks if correct answer given | |
| | 1 | | $\frac{16}{100}$ OR 0.16 | CAO OE Fraction | N16 |
| | 1 | | $\frac{16}{100}$ AND 0.16 | OE Fraction FT their fraction and decimal if equivalent | N16 |

**Activity 4: Moving house**                                         **(Calculator)**

| Q | Marks | UPS / PS | Process and Answer | Additional or Alternative Evidence (with guidance) | SC |
|---|---|---|---|---|---|
| 4 (a) | 1 | UPS | (£)160 | CAO | H29b |
| 4 (b) | 2 | PS | Company A AND $\frac{4}{200}$ OR Company A AND $\frac{3}{150}$ OR Company A AND 0.02 and 0.015 OR Company A AND 2(%) and 1.5(%) | Award 2 marks if correct answer given | |
| | 1 | | $\frac{4}{200}$ OR $\frac{3}{150}$ OR 0.02 and 0.015 OR 2(%) and 1.5(%) | OE Fraction which allows a direct comparison Allow finding $\frac{1}{50}$ and $\frac{3}{200}$ of the same value | H30b |
| | 1 | | Company A AND $\frac{4}{200}$ OR Company A AND $\frac{3}{150}$ OR Company A AND 0.02 and 0.015 OR Company A AND 2(%) and 1.5(%) | OE Fraction which allows a direct comparison OE Company A supported by correct working | H30b |
| 4 (c) | 1 | UPS |  | CAO | M25b |

| 4 (d) | 2 | PS | 45 (posters) | Award 2 marks if correct answer given | |
|---|---|---|---|---|---|
| | 1 | | 15 × 3 | OE Any full correct method to apply multiplication facts | N4 |
| | 1 | | 45 (posters) | CAO | N4 |
| 4 (e) | 5 | PS | See below | | |

**Alternative method 1 – Scale, area, total number of tiles then discount**

| | 1 | | 2.4 × 2 or 4.8 (m) OR 3.2 × 2 or 6.4 (m) | OE Any full correct method to apply the scale | M21 |
|---|---|---|---|---|---|
| | 1 | | Their 4.8 × their 6.4 or 30.72 (m²) or 31 (m²) | OE Any full correct method FT Their 4.8 and their 6.4 from correct method to apply scale 30.72 or 31 implies 1st mark | M22a |
| | 1 | | Their 31 × 8 or (£)248 | OE Any full correct method FT Their 31 from a correct method for area correctly rounded up to the nearest whole number 31 implies 1st two marks | N12 |
| | 1 | | Their 248 × 0.85 or (£)210.8(0) OR Their 248 × 0.15 or (£)37.2(0) | OE Any full correct method to find total or discount FT Their 248 if a whole number has been used in 3rd mark 210.8 or 37.2 implies 1st three marks | M19 |
| | 1 | | £210.80 | CAO 2dp required Award this mark only for £210.80 seen without working | M19 |

**Alternative method 2 – Scale, area, discount then total**

| | 1 | | 2.4 × 2 or 4.8 (m) OR 3.2 × 2 or 6.4 (m) | OE Any full correct method to apply the scale | M21 |
|---|---|---|---|---|---|
| | 1 | | Their 4.8 × their 6.4 or 30.72 (m²) or 31 (m²) | OE Any full correct method FT Their 4.8 and their 6.4 from correct method to apply scale 30.72 or 31 implies 1st mark | M22a |
| | 1 | | 8 × 0.85 or 6.8(0) OR 8 × 0.15 or 1.2(0) | OE Any full correct method to find total or discount on one square metre of carpet tiles | M19 |
| | 1 | | Their 31 × their 6.8(0) or (£)210.8(0) OR Their 31 × (8 – their 1.2(0)) or (£)210.8(0) | OE Any full correct method FT Their 31 from a correct method for area correctly rounded up to the nearest whole number FT Their 6.8 or their 1.2 from correct method for percentage 210.8 implies 1st three marks | N12 |
| | 1 | | £210.80 | CAO 2dp required Award this mark only for £210.80 seen without working | M19 |

| | | | | |
|---|---|---|---|---|
| **Alternative method 3 – Area, scale, total number of tiles then discount (Not expected at Level 1)** | | | | |
| 1 | | 2.4 × 3.2 or 7.68 (cm²) | OE Any full correct method | M22a |
| 1 | | Their 7.68 × 4 or 30.72 (m²) or 31 (m²) | OE Any full correct method to apply the scale<br>FT Their 7.68 from correct method for area<br>30.72 or 31 implies 1st mark | M21 |
| 1 | | Their 31 × 8 or (£)248 | OE Any full correct method<br>FT Their 31 from a correct method to find area first and an attempt to apply scale<br>Allow × 2 for scale<br>Their 31 must come from their answer correctly rounded up to the nearest whole number<br>248 implies 1st two marks | N12 |
| 1 | | Their 248 × 0.85 or (£)210.8(0)<br>OR<br>Their 248 × 0.15 or (£)37.2(0) | OE Any full correct method to find total or discount<br>FT Their 248 if a whole number has been used in 3rd mark<br>210.8 or 37.2 implies 1st three marks | M19 |
| 1 | | £210.80 | CAO<br>2dp required<br>Award this mark only for £210.80 seen without working | M19 |
| **Alternative method 4 – Area, scale, discount then total (Not expected at Level 1)** | | | | |
| 1 | | 2.4 × 3.2 or 7.68 (cm²) | OE Any full correct method | M22a |
| 1 | | Their 7.68 × 4 or 30.72 (m²) or 31 (m²) | OE Any full correct method to apply the scale<br>FT Their 7.68 from correct method for area<br>30.72 or 31 implies 1st mark | M21 |
| 1 | | 8 × 0.85 or 6.8(0)<br>OR<br>8 × 0.15 or 1.2(0) | OE Any full correct method to find total or discount on one square metre of carpet tiles | M19 |
| 1 | | Their 31 × their 6.8(0) or (£)210.8(0)<br>OR<br>Their 31 × (8 – their 1.2(0)) or (£)210.8(0) | OE Any full correct method<br>FT Their 31 from a correct method to find area first and an attempt to apply scale<br>Allow × 2 for scale<br>Their 31 must come from their answer correctly rounded up to the nearest whole number<br>FT Their 6.8 or their 1.2 from correct method for percentage<br>210.8 implies 1st three marks | N12 |
| 1 | | £210.80 | CAO<br>2dp required<br>Award this mark only for £210.80 seen without working | M19 |

**Alternative method 5 – Rounding the dimensions rather than area scale, area, total number of tiles then discount**

| | | | | |
|---|---|---|---|---|
| 1 | | 2.4 × 2 or 4.8 (m) or 5 (m)<br>OR<br>3.2 × 2 or 6.4 (m) or 7 (m) | OE Any full correct method to apply the scale | M21 |
| 1 | | 5 AND 7 | FT Their 4.8 and their 6.4 correct rounded up to the nearest whole number 5 or 7 implies 1st mark | N12 |
| 1 | | Their 5 × their 7 (× 8) or 35 (m²)<br>OR<br>280 | OE Any full correct method<br>FT Their 5 and their 7 from correct method to apply scale and correctly rounded up to the nearest whole number 35 or 280 implies 1st two marks | M22a |
| 1 | | Their 280 × 0.85 or (£)238<br>OR<br>Their 280 × 0.15 or (£)42 | OE Any full correct method to find total or discount<br>FT Their 280 if whole numbers have been used in 3rd mark<br>(£)238 or (£)42) implies 1st three marks | M19 |
| 1 | | £238 | CAO | M19 |

**Alternative method 6 – Rounding the dimensions rather than area scale, area, discount then total**

| | | | | |
|---|---|---|---|---|
| 1 | | 2.4 × 2 or 4.8 (m) or 5 (m)<br>OR<br>3.2 × 2 or 6.4 (m) or 7 (m) | OE Any full correct method to apply the scale | M21 |
| 1 | | 5 AND 7 | FT Their 4.8 and their 6.4 correct rounded up to the nearest whole number 5 or 7 or 35 implies 1st mark | N12 |
| 1 | | 8 × 0.85 or 6.8(0)<br>OR<br>8 × 0.15 or 1.2(0) | OE Any full correct method to find total or discount on one square metre of carpet tiles | M19 |
| 1 | | Their 5 × their 7 (× their 6.8(0)) or 35 or (£)238<br>OR<br>Their 5 × their 7 × (8 – their 1.2(0)) or 35 or (£)238 | OE Any full correct method<br>FT Their 5 and their 7 from a correct method to apply scale and correctly rounded up to the nearest whole number 35 implies 1st two marks<br>238 implies 1st three marks | M22a |
| 1 | | (£)238 | CAO | M19 |

| | | | | | |
|---|---|---|---|---|---|
| 4 (f) | **1** | **UPS** | 64 | CAO | N6 |
| 4 (g) | **3** | **PS** | (£)60 | Award 3 marks if correct answer given from correct methods and accurate values <mark>if working seen</mark> | |
| | 1 | | 1400 × 0.05 × 3 or 210<br>OR<br>1400 + (1400 × 0.05 × 3) or 1610 | OE Any full correct method to work out interest or total amount in savings account | M18 |
| | 1 | | 1670 – [1400 + (1400 × 0.05 × 3)]<br>or<br>1670 – (1400 + their 210)<br>or<br>1670 – their 1610 | OE Any full correct method to work out how much extra is needed<br>FT Their 210 or their 1610 from fully correct method<br>210 or 1610 implies 1st mark | M18 |
| | 1 | | (£)60 | CAO | M18 |