



NCFE Level 2 Functional Skills Qualification in Mathematics (603/5060/X)

Mark Scheme: **Sample Assessment Materials**

Assessment window: on demand

v1.0 Pre-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 (SC) 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 (for example, 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 event 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
 - additional or alternative evidence
 - indicative of the 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 the method uses the learner's answer from a previous step.
OE	'Or equivalent' marks are available for the justification of the answer being presented in a different form to the Mark Scheme (ie 0.5 or $\frac{1}{2}$).
CAO	'Correct answer only'.
Their	'Their' refers to the learner's own derived values from a correct method or from an attempt at a correct method.
Seen	'Seen' refers to the requirement to see the stated value in the learner's response or working out.
Brackets	Indicates units are not required on final answers or for answers seen within working.
Shaded	Indicates requirements for full marks to be awarded.
Coloured SC box	Onscreen only: indicates where subject content reference 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 back of the learner script.

Online: onscreen annotation tools (for example, ticks, crosses) 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 SC 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.
BOD	Used to indicate where the learner may have made an error that has resulted in benefit of doubt being applied (ie transposition of figures but previous working clearly shows otherwise).
IMP	Implied refers to the learner's response implying correct working out used but not seen.

Paper number: SAMs				Version: 1.0	
(Section A) Activity 1: underpinning skills (Non-calculator Test)					
Q	Marks	UPS / PS	Process and answer	Additional or alternative evidence (with guidance)	SC
1 (a)	1	UPS	3.373	CAO	N10a
1 (b)	1	UPS	1 695 960	CAO	N2a
1 (c)	1	UPS	3 020 092	CAO	N1a
1 (d)	2	UPS	$\frac{43}{35}$ or $1\frac{8}{35}$	Award 2 marks if correct answer given.	
	1		$\frac{28}{35} + \frac{15}{35}$	OE Any full correct method to add fractions. Accept 0.8 + 0.428(571...)	N7a
	1		$\frac{43}{35}$ or $1\frac{8}{35}$	CAO OE Fraction	N7a
Activity 2: charity event (Non-calculator Test)					
2 (a)	3	PS	See below		
	(i)	1	$36 \div 3 (\times 5)$ or 12	OE Any correct full or partial method to apply ratio.	N11a
		1	60 (food stalls)	CAO	N11a
	(ii)	1	$60 \div 5 \times 3 = 36$ OR $60 \div 36 \times 3 = 5$ OR $36 \div 60 \times 5 = 3$ OR $60 \div 5 \times (5 + 3) = 96$	Valid reverse check. FT Their 60 from an attempt to apply ratio. Their check must have at least two operations.	N2b
2 (b)	3	PS	450 (m ²)	Award 3 marks if correct answer given without any working or from correct partial working. Any working seen must have correct methods and accurate figures.	
	Alternative method 1: scale then area				
	1		$15 \times 200 (\div 100)$ or 3000 (cm) or 30 (m)	OE Any correct method to apply scale.	M18a
	1		$0.5 \times \text{Their } 30 \times \text{their } 30$ OR $0.5 \times \text{their } 3000 \times \text{their } 3000 (\div 100 \div 100)$ or 4 500 000 (cm ²)	OE Any correct method to find area FT Their 30 or their 3000 from an attempt to apply scale. 4 500 000 implies 1st mark.	M16b
	1		450 (m ²)	CAO	M16b
	Alternative method 2: area then scale				

	1		$0.5 \times 15 \times 15$ or $112.5 \text{ (cm}^2\text{)}$	OE Any correct method to find area.	M16b
	1		Their $112.5 \times 200 \times 200 (\div 100 \div 100)$ or $4\,500\,000 \text{ (cm}^2\text{)}$	OE Any correct method to apply scale. FT Their 112.5 from an attempt to find area. 4 500 000 implies 1st mark.	M18a
	1		$450 \text{ (m}^2\text{)}$	CAO	M16b
2 (c)	4	PS	See below		
	1		2775×0.08 or 222 OR 2775×1.08	OE Any correct method to find increase or total after percentage increase.	N5a
	1		(£)2997	CAO	N2a
	1		Their $2997 \div 333$ OR 9×333	OE Any correct method to apply proportion. FT Their 2997 from an attempt to find percentage increase.	N11a
	1		(£)9	FT Correct answer to correct calculation using their values from correct method to find percentage increase. Award 1 mark only for (£)9 seen without working.	N2a

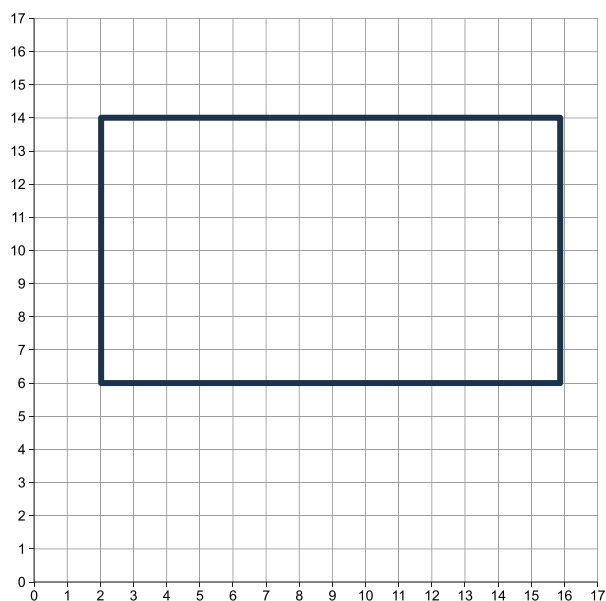
(Section B) Activity 3: underpinning skills (Calculator Test)

Q	Marks	UPS / PS	Process and answer	Additional or alternative evidence (with guidance)	SC
3 (a)	1	UPS	Square-based pyramid	CAO	M20
3 (b)	1	UPS	-3.8, -3.6, -1.3, 2.5	CAO	N1b
3 (c)	1	UPS	$\frac{12}{50}$ or 24(%) or 0.24	CAO OE Fraction	H26
3 (d)	2	UPS	(£) 240 000	Award 2 marks if correct answer given.	
	1		261 600 ÷ 1.09	OE Any full correct method.	N6b
	1		(£) 240 000	CAO	N6b

Activity 4: marketing (Calculator Test)

4 (a)	3	PS	See below	Award 3 marks if diagram correctly completed.	
	1		4 ÷ 50 (× 100) or 0.08 (m) or 8 (cm) OR 7 ÷ 50 (× 100) or 0.14 (m) or 14 (cm)	OE Any correct method to apply scale.	M18b
	1		Bottom left-hand corner drawn at (2, 6) or point marked at (2, 6)	CAO	M19
	1		8 cm x 14 cm rectangle drawn	FT Their (2, 6)	M18b

Additional guidance



4 (b)	2	PS	135(°)	Award 2 marks if correct answer given.	
	1		360 – 90 – 90 – 45 OR (360 – 90) ÷ 2 OR 45 + 90	OE Any full correct method to work out x. Alternative angle method not expected at Level 2 but award mark if seen.	M22a
	1		135(°)	CAO	M22a
4 (c)	4	PS	See below		
	1		6.7(142...) OR 6.8	At least one correct mean.	H25
	1		8 OR 7	At least one correct median.	H25
	1		6.7(142...) AND 6.8 AND 8 AND 7	CAO If 1st and 2nd marks not awarded, award 1 mark for correct method for at least one mean or one median.	H25
	1		Valid comment eg if use mean, student is correct AND if use median, Jamal is correct.	FT Relevant comments from their mean and median values from correct methods seen.	H25
4 (d)	3	PS	12(.5)(%)	Award 3 marks if correct answer given without any working or from correct partial working. Any working seen must have correct methods and accurate figures.	
	1		12 × 0.18 or (£)2.16 OR 12 × 0.82 or (£)9.84	OE Any correct method to work out discounted price or discount per poster for company A.	M13b
	1		(Their 9.84 – 8.61) ÷ their 9.84 (× 100) or 1.23 ÷ their 9.84 (× 100) or 0.125 OR 8.61 ÷ their 9.84 (× 100) or 0.875 or 87.5%	OE Any full correct method to find percentage saving. FT Their 9.84 from an attempt to find discounted price. Accept 0.13 or 0.88 or 88(%) from correct values rounded up. Any correct value implies 1st mark.	N6a
	1		12(.5)(%)	CAO Accept 13(%) rounded up from 12.5	N6a

Activity 5: underpinning skills (Calculator Test)					
Q	Marks	UPS / PS	Process and answer	Additional or alternative evidence (with guidance)	SC
5 (a)	1	UPS	$\frac{1100}{1500}$ OR 0.73(333...) OR 73(.333...) (%)	CAO OE Fraction	H27
5 (b)	1	UPS	6020	CAO	N12
5 (c)	1	UPS		CAO Mark intention Allow top rectangle to be wider than bottom rectangle.	M21
5 (d)	2	UPS	10.8(333...) (days)	Award 2 marks if correct answer given.	
	1		$(7 \times 5) + (3 \times 15) + (2 \times 25)$ or $35 + 45 + 50$ or 130	OE Any correct method to find sum of midpoints multiplied by frequencies. Allow one error in use of midpoints	H24
	1		10.8(333...) (days)	CAO 10.8(333...) from $130 \div 12$ Accept 11 from 10.8(333...) rounded up.	H24
Activity 6: laundry (Calculator Test)					
6 (a)	3	PS	18.5 (m ²)	Award 3 marks if correct answer given without any working or from correct partial working. Any working seen must have correct methods and accurate figures.	
	1		$3.14 \times 0.3 \times 1.4$ or 1.3(188) (m ²)	OE Any correct method to find surface area of cylinder (not including ends). Accept [1.3, 1.32] from use of π button and / or truncation or rounding.	M17b
	1		Their $1.3(188) \times 4 \times 3.5$ or 18.46(32) (m ²)	OE Any correct method to find total area per minute for 4 machines. FT Their 1.3(188) from an attempt to find surface area. Accept [18.34, 18.48] from use of π button and / or truncation or rounding.	N11a
	1		18.5 (m ²)	CAO Accept 18.3 or 18.4 from their value correctly rounded to 1dp from correct methods.	N9b

6 (b)	5	PS	See below		
	Alternative method 1: compare rate per month or number of months				
	1		8500, 9750, 10 500, 10 500, 11 500 ... OR 12 750, 12 000, 12 000, 11 500, 10 500 ... OR (10 500 + 11 500) ÷ 2	OE Any correct method to find median.	H23a
	1		(£)11 000	CAO median Must be from correct method if seen. 11 000 implies 1st mark.	H23a
	1		Their 11 000 × 1.04 ² or (£)11 897.6(0)	OE Any correct method to find total cost of loan. FT Their 11 000 from an attempt to find median. Allow use of any value in range [8500, 12 750] or mean (10 937.50) 11 897.6 implies 1st two marks.	M13b
	1		Their 11 897.6 ÷ 60 or (£)198.2(933...) OR their 11 897.6 ÷ 190 or 62(.618...) (months) OR 60 × 190 or (£) 11 400	OE Any correct method to find amount to pay per month or number of months or the total amount if paying 190 per month. FT Their 11 897.6 from an attempt to find median and to find total amount owed. Allow use of any value in range [8500, 12 750] or mean (10 937.5(0)) 198.2(933...) or 62(.618...) implies 1st three marks.	M13a
	1		No AND (£)198.2(933...) (compared with 190) OR No AND 62(.618...) (months) (compared with 60 months) OR No AND (£) 11 897.6(0) and (£) 11 400	OE No supported by correct working.	N9a

Alternative method 2: reverse process, compare median				
1		8500, 9750, 10 500, 10 500, 11 500 ... OR 12 750, 12 000, 12 000, 11 500, 10 500 ... OR (10 500 + 11 500) ÷ 2	OE Any correct method to find median.	H23a
1		(£)11 000	CAO median Must be from correct method if seen. 11 000 implies 1st mark.	H23a
1		60 × 190 or (£) 11 400	OE Any correct method to find amount paid.	M13a
1		Their 11 400 ÷ 1.04 ² or (£)10 539(.940...)	OE Any correct method to find initial amount. FT Their 11 400 from an attempt to find amount paid. Accept 10 540 from rounding up. 10 539(.940...) or 10 540 implies 3rd mark.	M13b
1		No AND (£)11 000 and (£)10 539(.940...)	OE No supported by correct working. Accept 10 540 from rounding up.	N9a
Alternative method 3: reverse process, compare rate (not expected at Level 2)				
1		8500, 9750, 10 500, 10 500, 11 500 ... OR 12 750, 12 000, 12 000, 11 500, 10 500 ... OR (10 500 + 11 500) ÷ 2	OE Any correct method to find median.	H23a
1		(£)11 000	CAO median Must be from correct method if seen. 11 000 implies 1st mark.	H23a
1		60 × 190 or (£) 11 400	OE Any correct method to find amount paid.	M13a
1		(Their 11 400 ÷ their 11 000) ^{1/2} or 1.018(019...) or 0.018(019...) or 101.8(019...) (%) or 1.8(019...) (%)	OE Any correct method to find rate. FT Their 11 400 from an attempt to find amount paid. FT Their 11 000 from an attempt to find median. Allow use of any value in range [8500, 12 750] or mean (10 937.50) Accept 1.02 or 0.02 or 102 (%) or 2 (%) from rounding up. Any correct value implies 3rd mark only if come from correct methods.	M13b
1		No AND 1.8(019...) (%) (%) or 2 (%) (compared with 4% given) OR No AND 101.8(019...) (%) or 102 (%) and 104 (%) OR No AND 0.018(019...) or 0.02 and 0.04 OR No AND 1.018(019...) or 1.02 and 1.04	OE No supported by correct working. Their values must come from correct methods. 104 (%) or 1.04 and 0.04 from 4% given.	N9a

6 (c)	3	PS	14 (gallons)	Award 3 marks if correct answer given without any working or from correct partial working. Any working seen must have correct methods and accurate figures.	
	1		$(20 \times 4500) \div (0.9 \times 1000 \times 1.562)$	Correct substitution into formula.	N3
	1		64(.020...) (litres)	CAO	N12
	1		14 (gallons)	FT Conversion of Their 64(.020...) Accept [13.6, 14.4]	M14b
Activity 7: kitchen makeover (Calculator Test)					
Q	Marks	UPS / PS	Process and answer	Additional or alternative evidence (with guidance)	SC
7 (a)	3	PS	0.375	Award 3 marks if correct answer given without any working or from correct partial working. Any working seen must have correct methods and accurate figures.	
	1		3 AND 8	CAO	H28
	1		$\frac{3}{8}$	OE Fraction FT Their 8 and 3 Accept $\frac{a}{b}$ with $1 < a < 8$ and $1 < b < 14$ and $a < b$	N8
	1		0.375	FT Their fraction $\frac{a}{b}$ with $a < b$ only if $\frac{a}{b}$ is not a multiple of twentieths. Accept 0.38 rounded up from 0.375 seen.	N4
7 (b)	5	PS	See below		
(i)	1		(£)136	CAO Mode	H23b
	1		175×2.54 or 444.5 (cm)	OE Any correct method to convert from inches to cm	M14a
	1		Their $444.5 \times \text{their } 136 \div 100$	OE Any correct method to find total price. FT Their (£)136 if in range [99, 198] Allow use of mean (144.5) or median (142) FT Their 444.5 (cm) if from an attempt to convert.	N11a
	1		(£)604.52	CAO	M13a
(ii)	1		eg $445 \times 140 \div 100 = 623$	OE Any reasonable calculation. Must include at least one estimate.	N2b

7 (c)	4	PS	See below	Award 4 marks if correct answer given without any working or from correct partial working. Any working seen must have correct methods and accurate figures.	
	Alternative method 1: find volume, then percentage, the apply rate				
	1		$1520 \times 18 \div 1000$ or $27\,360 \text{ (cm}^3\text{)}$ or 27.36 (litres)	OE Any full correct method to find volume of sink. OE consistent units.	M17a
	1		Their $27\,360 \times 0.72$ or $19\,699(.2) \text{ (cm}^3\text{)}$ OR their 27.36×0.72 or $19.6(992) \text{ (litres)}$	OE Any correct method to find percentage of volume. FT Their $27\,360 \text{ (cm}^3\text{)}$ or 27.36 (litres) from an attempt to find volume. $19\,699(.2)$ OR $19.6(992)$ implies 1st mark. Accept $19\,700$ or any correct rounding or truncation of $19.6(992)$ to at least 1dp.	N5a
	1		Their $19\,699(.2) \div 1000 \div 16$ or $1.2(312) \text{ (mins)}$ OR their $19.6(992) \div 16$ or $1.2(312) \text{ (mins)}$	OE Any correct method to find time. FT Their $19\,699(.2) \text{ (cm}^3\text{)}$ or $19.6(992)$ from an attempt to find volume and to find percentage of value. Accept $[1.23, 1.2313]$ from rounding or truncation. $[1.23, 1.2313]$ implies 1st two marks.	M15
	1		Yes AND $1.2(312)$ minutes	OE Yes supported by correct working. Accept $[1.23, 1.2313]$ from rounding or truncation.	N9a
	Alternative method 2: find percentage of area or depth, then volume, then apply rate				
	1		1520×0.72 or $1094.4 \text{ (cm}^2\text{)}$ OR 18×0.72 or 12.96 (cm)	OE Any correct method to find percentage of area or depth.	N5a
	1		Their 1094.4×18 or $19\,699(.2) \text{ (cm}^3\text{)}$ OR $1520 \times$ their 12.96 or $19\,699(.2) \text{ (cm}^3\text{)}$	OE Any full correct method to find volume of sink. FT Their 1094.4 or 12.96 from an attempt to find percentage of value. $19\,699(.2)$ implies 1st mark. Accept $19\,700$	M17a
	1		Their $19\,699(.2) \div 1000 \div 16$ or $1.2(312) \text{ (mins)}$ OR their $19.6(992) \div 16$ or $1.2(312) \text{ (mins)}$	OE Any correct method to find time. FT Their $19\,699(.2) \text{ (cm}^3\text{)}$ or $19.6(992)$ from an attempt to find percentage of value and to find volume. Accept $[1.23, 1.2313]$ from rounding or truncation. $[1.23, 1.2313]$ implies 1st two marks.	M15
	1		Yes AND $1.2(312)$ minutes	OE Yes supported by correct working. Accept $[1.23, 1.2313]$ from rounding or truncation.	N9a

Alternative method 3: find volume, then apply rate, then percentage				
1		$1520 \times 18 \div 1000$ or 27 360 (cm ³) or 27.36 (litres)	OE Any full correct method to find volume of sink. OE consistent units.	M17a
1		Their $27\,360 \div 1000 \div 16$ or 1.71 (mins) OR their $27.36 \div 16$ or 1.71 (mins)	OE Any correct method to find time to fill sink. FT Their 27 360 (cm ³) or 27.36 from an attempt to find volume. 1.71 implies 1st mark.	M15
1		Their 1.71×0.72 or 1.2(312) (mins)	OE Any correct method to find percentage of time. FT Their 1.71 from an attempt to find volume and to apply rate. Accept [1.23, 1.2313] from rounding or truncation. [1.23, 1.2313] implies 1st two marks.	N5a
1		Yes AND 1.2(312) minutes	OE Yes supported by correct working. Accept [1.23, 1.2313] from rounding or truncation.	N9a
Alternative method 4: reverse method – compare rate				
1		$1520 \times 18 \div 1000$ or 27 360 (cm ³) or 27.36 (litres)	OE Any full correct method to find volume of sink. OE consistent units.	M17a
1		Their $27\,360 \times 0.72$ or 19 699(.2) (cm ³) OR their 27.36×0.72 or 19.6(992) (litres)	OE Any correct method to find percentage of volume. FT Their 27 360 (cm ³) or 27.36 (litres) from an attempt to find volume. 19 699(.2) OR 19.6(992) implies 1st mark. Accept 19 700 or any correct rounding or truncation of 19.6(992) to at least 1dp.	N5a
1		Their $19\,699(.2) \div 1000 \div 1.3$ or 15(.153...) (litres/min) OR their $19.6(992) \div 1.3$ or 15(.153...) (litres/min)	OE Any correct method to find rate. FT Their 19 699(.2) (cm ³) or 19.6(992) from an attempt to find volume and to find percentage of value. Accept [15, 15.2] from rounding or truncation of 19 699(.2) or 19.6(992) [15, 15.2] implies 1st two marks.	M15
1		Yes AND 15(.153...) (litres/min)	OE Yes supported by correct working. Accept [15, 15.2]	N9a
Alternative method 5: reverse method – compare percentage				
1		$1520 \times 18 \div 1000$ or 27 360 (cm ³) or 27.36 (litres)	OE Any full correct method to find volume of sink. OE consistent units.	M17a
1		$1.3 \times 16 (\times 1000)$ or 20.8 (litres) or 20 800 (cm ³)	OE Any correct method to work with rate.	M15
1		Their $20.8 \div \text{their } 27.36 (\times 100)$ or 0.76(023...) or 76(.023...)(%) OR their $20\,800 \div \text{their } 27\,360 (\times 100)$ or 0.76(023...) or 76(.023...)(%)	OE Any correct method to find percentage. FT Their 20.8 or their 28 000 from an attempt to work with rate. FT Their 27.36 or their 27 360 from an attempt to find volume. 0.76(023...) or 76(.023...)(%) imply 1st two marks.	N5a
1		Yes AND 0.76(023...) and 0.72 OR Yes AND 76(.023...)(%)	OE Yes supported by correct working 0.72 from 72%	N9a

		(compared with 72%)		
Alternative method 6: reverse method – compare total volume				
1		$1520 \times 18 \div 1000$ or $27\,360 \text{ (cm}^3\text{)}$ or $27(.36) \text{ (litres)}$	OE Any full correct method to find volume of sink. OE consistent units.	M17a
1		$1.3 \times 16 \times 1000$ or 20.8 (litres) or $20\,800 \text{ (cm}^3\text{)}$	OE Any correct method to work with rate.	M15
1		Their $20.8 \div (72 \div 100)$ or $28(.888\dots)$ (litres) OR their $20\,800 \div (72 \div 100)$ or $28\,888(.888\dots) \text{ (cm}^3\text{)}$	OE Any correct method to work with percentage in reverse. FT Their 20.8 or their $20\,800$ from an attempt to work with rate. Accept any correct rounding or truncation of $28(.888\dots)$ or $28\,888(.888\dots)$ to at least nearest whole unit. $28(.888\dots) \text{ (litres)}$ or $28\,888(.888\dots) \text{ (cm}^3\text{)}$ implies 2nd mark.	N5a
1		Yes AND $27(.36) \text{ (litres)}$ and $28(.888\dots) \text{ (litres)}$ OR Yes AND $27\,360 \text{ (cm}^3\text{)}$ and $28\,888(.888\dots) \text{ (cm}^3\text{)}$	OE Yes supported by correct working. Accept any correct rounding or truncation of $28(.888\dots)$ or $28\,888(.888\dots)$ to at least nearest whole unit.	N9a
Alternative method 7: compare area of base or depth				
1		$1.3 \times 16 \times 1000$ or 20.8 (litres) or $20\,800 \text{ (cm}^3\text{)}$	OE Any correct method to work with rate.	M15
1		Their $20.8 \div (72 \div 100)$ or $28(.888\dots)$ (litres) OR their $20\,800 \div (72 \div 100)$ or $28\,888(.888\dots) \text{ (cm}^3\text{)}$	OE Any correct method to work with percentage in reverse. FT Their 20.8 or their $20\,800$ from an attempt to work with rate. Accept any correct rounding or truncation of $28(.888\dots)$ or $28\,888(.888\dots)$ to at least one whole unit. $28(.888\dots) \text{ (litres)}$ or $28\,888(.888\dots) \text{ (cm}^3\text{)}$ implies 1st mark.	N5a
1		Their $28(.888\dots) \times 1000 \div 1520$ or $19(.005\dots) \text{ (cm)}$ OR their $28(.888\dots) \times 1000 \div 18$ or $1604(.938\dots) \text{ (cm}^2\text{)}$	OE Any correct method to work with volume in reverse. FT Their $28(.888\dots)$ from an attempt to work with percentage. $19(.005\dots) \text{ (cm)}$ or $1604(.938\dots) \text{ (cm}^2\text{)}$ imply 1st two marks. Accept any rounding or truncation of either value to at least nearest whole unit.	M17a
1		Yes AND $19(.005\dots) \text{ (cm)}$ (compared with 18 cm) OR Yes AND $1604(.938\dots) \text{ (cm}^2\text{)}$ (compared with 1520 cm^2)	OE Yes supported by correct working. Accept any rounding or truncation of either value to at least nearest whole unit.	N9a
Alternative method 8: compare reduced volume				
1		$1520 \times 18 \div 1000$ or $27\,360 \text{ (cm}^3\text{)}$ or $27(.36) \text{ (litres)}$	OE Any full correct method to find volume of sink. OE consistent units.	M17a
1		Their $27\,360 \times 0.72$ or $19\,699(.2) \text{ (cm}^3\text{)}$ OR their 27.36×0.72 or $19.6(992) \text{ (litres)}$	OE Any correct method to find percentage of volume. FT Their $27\,360 \text{ (cm}^3\text{)}$ or 27.36 (litres)	N5a

				from an attempt to find volume. 19 699(.2) OR 19.6(992) implies 1st mark. Accept 19 700 or any correct rounding or truncation of 19.6(992) to at least 1dp.	
	1		$1.3 \times 16 (\times 1000)$ or 20.8 (litres) or 20 800 (cm ³)	OE Any correct method to work with rate.	M15
	1		Yes AND 19 699(.2) (cm ³) and 20 800 (cm ³) OR Yes AND 19.6(992) (litres) and 20.8 (litres)	OE Yes supported by correct working. Accept 19 700 or any correct rounding or truncation of 19.6(992) to at least 1dp.	N9a

All the material in this publication is © NCFE.