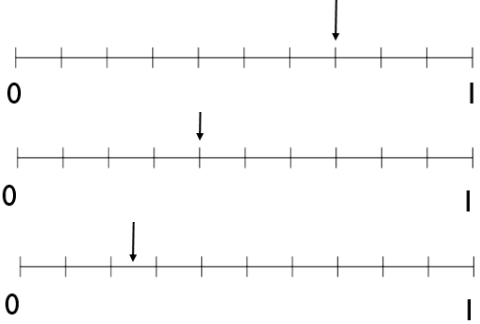


Year 7 Autumn Core Paper A

Question	Answer	Marks	Notes and guidance
1	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> 345 344.9 </div> <div style="text-align: center;"> 355 351 </div> <div style="text-align: center;"> 350.9 364 </div> </div> <p>Indicates 10</p>	<p style="text-align: center;">2</p> <p style="text-align: center;">1</p>	<p>2 marks for all three correct, no extras. Condone any clear indication e.g. underlining Allow 1 mark for 2 correct answers and no more than 1 incorrect extra.</p> <p>Accept any clear indication – arrow, line etc.</p>
2		<p style="text-align: center;">1</p> <p style="text-align: center;">1</p> <p style="text-align: center;">1</p>	<p>Accept any clear indication – arrow, line etc.</p> <p>Allow slight misplacement provided intention is clear.</p>
3	<p>18</p> <p>4</p>	<p style="text-align: center;">1</p> <p style="text-align: center;">1</p>	<p>Do not accept incomplete processing e.g. 3 x 6</p>
4	<p>11.9</p> <p>5.1</p>	<p style="text-align: center;">1</p> <p style="text-align: center;">1</p>	

Year 7 Autumn Core Paper A

5	300 080 012	1	Allow any correct form, with or without commas or separators
5 continued	<	1	
	>	1	
	<	1	
6	6.5	1	Accept e.g. 6.5
	e.g. "each one is worth ten tenths, so there are 38 tenths altogether" or " $3 = \frac{30}{10}$ so $38 = \frac{38}{10}$ " etc.	1	Any reasonable explanation, must demonstrate understanding that one whole is ten tenths
7	146.25	1	Do not accept incomplete processing
	2.6	1	
	144	1	
8	$17p = 397.8$	1	Allow in any correct form e.g. $397.8 = 17p$. Allow use of different choice of letter.
	23.4	1	This mark is available regardless of whether an equation was seen/was correct.
9	50	1	
	$9x + 1$	1	

Year 7 Autumn Core Paper A

10	$\frac{3}{9}$	1											
11	18.15	1											
	1520	1											
12	119.4	1											
	<table border="1" data-bbox="376 512 775 715"> <tbody> <tr> <td>$x + 2x \equiv 3x$</td> <td>T</td> </tr> <tr> <td>$a + a + a \equiv a^3$</td> <td>F</td> </tr> <tr> <td>$3x + 3y \equiv 6xy$</td> <td>F</td> </tr> <tr> <td>$x^2 + x^2 \equiv 2x^2$</td> <td>T</td> </tr> </tbody> </table>	$x + 2x \equiv 3x$	T	$a + a + a \equiv a^3$	F	$3x + 3y \equiv 6xy$	F	$x^2 + x^2 \equiv 2x^2$	T	2	Allow one mark for three correct choices. Allow any clear indication e.g. ticks and crosses.		
	$x + 2x \equiv 3x$	T											
	$a + a + a \equiv a^3$	F											
$3x + 3y \equiv 6xy$	F												
$x^2 + x^2 \equiv 2x^2$	T												
13	e.g. $5\frac{3}{4}$, 5.9, 5.751	1	Any number x such that $5.5 < x < 6$, allow decimals or mixed numbers										
	e.g. 5.76, $5\frac{31}{40}$	1	Any number x such that $5.75 < x < 5.8$, allow decimals or mixed numbers										
14	$\frac{2}{3}$	1	Allow equivalent fractions										
	e.g. 2 grey 1 white and 4 grey 2 white and 6 grey	1	Any combination so that the total number of greys is four times the total number of whites										
15	<table border="1" data-bbox="376 1251 954 1353"> <tbody> <tr> <td>x</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>$y = 2x + 3$</td> <td>3</td> <td>5</td> <td>7</td> <td>9</td> </tr> </tbody> </table>	x	0	1	2	3	$y = 2x + 3$	3	5	7	9	2	Allow one mark for any two correct values
x	0	1	2	3									
$y = 2x + 3$	3	5	7	9									

Year 7 Autumn Core Paper A

	Indicates graph A	1	
16	11	1	
17	Indicates 0.6	1	Award one mark for one step of correct calculation
	e.g. 21%, 22%, 24.9%...	1	Any percentage x such that $20\% < x < 25\%$
	e.g. 2.5%, 3%, 3.9%	1	Any percentage x such that $2\% < x < 4\%$

Year 7 Autumn Core Paper Mark Scheme

Question	Answer	Marks	Notes and guidance
1	17 048	1	Allow any correct form e.g. 17, 048 or 17048
	Thirty thousand	1	
	3 hundredths	1	
2	1331.28	1	
	1300	1	
3	Mark shown at $\frac{6}{10}$ on diagram	1	
	Mark shown at $\frac{6}{10}$ on diagram	1	
	0.6	1	
4	236	1	
	31.75	1	
5	142	1	
	83.2	1	
	62.5	1	
6	$\frac{2}{10}$ or any equivalent fraction	1	Do not accept decimals or percentages
	30%	1	
7	605.75	2	Award 1 mark for 704.1 – 98.35 seen or implied

Year 7 Autumn Core Paper Mark Scheme

8	$m + 18.9 = 27.3$ $18.9 + m = 27.3$ $27.3 - m = 18.9$ $27.3 - 18.9 = m$	2	Award 1 mark for 2 or 3 correct
	8.4	1	
9	Ticks the first and third sequences	1	
	e.g. the differences change	1	Any reasonable explanation
10	66.5	1	
	20.25	2	Award 1 mark for $9.5 \div 2$ seen or implied
11	$\frac{x+11}{7}$	2	Award 1 mark for $x + \frac{11}{7}$
12	20	2	Award 1 mark for 22.0526... seen
13	Tom with working e.g. $\frac{152}{200} = 76\%$ and $76\% > 71\%$ OR 71% of $200 = 142$ and $142 < 152$	2	Accept any clear indication – circled, underlined, ticked etc. Award 1 mark for a correct conversion but no comparison
14	28.6	1	
	616	1	
	$\frac{1}{2}$	1	Allow any equivalent fraction or 0.5
15	Indicates false, with correct explanation e.g. “You cannot add unlike terms”	1	

Year 7 Autumn Core Paper Mark Scheme

16	50.5%	3	<p>Allow $\frac{101}{200}$ or other equivalent fraction</p> <p>Award 1 mark for $\frac{3}{8} = 0.375$ or 37.5% or 0.12 expressed as a fraction and attempt to find a common denominator with $\frac{3}{8}$</p> <p>Award 2nd mark for attempt to subtract their decimals or fractions from 1 or their percentages from 100%</p>
17	Add $\frac{3}{10}$ each time	2	Award 1 mark $\frac{3}{10}$ or 0.3 seen or implied.

Year 7 Spring Core Paper



Question	Answer	Marks	Notes and guidance
1	-5, -3, 0, 2, 8	1	
	0	1	Follow through – third item of their ordered list, provided all five items used and at least some attempt at ordering.
2	417	1	.
	251	1	
3	72	2	Award 1 mark for fully correct method e.g. <ul style="list-style-type: none"> • attempt to find area of rectangle and triangle and add to find the total • attempt at correct formula for area of a trapezium
4	$2\frac{3}{5}$	1	
	13		
5	1.95	1	Allow any correct form e.g. $1\frac{19}{20}$
	12	1	
6	-5	1	
	-8	1	

Year 7 Spring Core Paper

	$3\frac{1}{3}$ (or $\frac{10}{3}$, 3.33 ...)	2	Award 1 mark for correct first step of working e.g. $3z = 10$ or $z + \frac{1}{3} = \frac{11}{3}$										
7	81	2	Award 1 mark for fully correct method i.e. <ul style="list-style-type: none"> • Attempt to find perimeter of the triangle 12×3 • Attempt to divide their perimeter by 4 to find side of square • Attempt to square their side length 										
8	<table border="1" data-bbox="369 622 844 997"> <thead> <tr> <th>Debit (£)</th> <th>Balance (£)</th> </tr> </thead> <tbody> <tr> <td style="background-color: black;"></td> <td>125.47</td> </tr> <tr> <td>93.20</td> <td>32.27</td> </tr> <tr> <td style="background-color: black;"></td> <td>443.07</td> </tr> <tr> <td><u>165</u></td> <td>278.07</td> </tr> </tbody> </table>	Debit (£)	Balance (£)		125.47	93.20	32.27		443.07	<u>165</u>	278.07	2	Award 1 mark for two of the highlighted values correct.
Debit (£)	Balance (£)												
	125.47												
93.20	32.27												
	443.07												
<u>165</u>	278.07												
9	A, because $\pounds 35 > \pounds 30$	2	Must see 35, 30 and choice of A. Award 1 mark for at least one of 35, 30 correct and correct decision for their values.										
10	12	2	Award 1 mark for fully correct method i.e. adding all five numbers and dividing by 5										

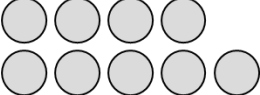
Year 7 Spring Core Paper

11	-4	2	Award 1 mark for fully correct method e.g. finding the distance, halving and adding to -9
12	$\frac{5}{8}$	1	
	$\frac{5}{7}$	1	
	$1\frac{1}{2}$	1	Accept any equivalent form e.g. 1.5, $1\frac{2}{4}$, $\frac{6}{4}$ etc.
13	-5 0.5 (or $\frac{1}{2}$) 20 -4	3	Award 2 marks for any three correct values. Award 1 mark for any two correct values.
	7	1	
14	8.4	2	Allow any equivalent answer e.g. $\frac{42}{5}$, $8\frac{2}{5}$ etc. Award 1 mark for fully correct method e.g. <ul style="list-style-type: none"> • attempt to subtract 8 from 5 and then divide by 5 • $5x + 8 = 50$ and $5x = 42$ seen • $5n + 8 = 50$ and $n + \frac{8}{5} = 10$ seen

Year 7 Spring Core Paper

15	-20, 80	1	Both values correct.
	No – the differences between the terms are not equal	1	Allow any reasonable explanation e.g. <ul style="list-style-type: none"> • No, the gaps change • No, it's geometric • No, because you're multiplying not adding the same amount every time
16	19	1	Accept any clear indication – circled, underlined etc.
17	216 cm ²	2	One mark for 196, one mark for cm ² .
18	$3\frac{7}{8}$	2	Allow any equivalent answer e.g. $\frac{31}{8}$, 3.875 etc. Award 1 mark for clear attempt at $-2\frac{3}{8} + 6\frac{1}{4}$ or equivalent calculation (not just sight of the calculation, it must be attempted).

Year 7 Spring Core Paper Mark Scheme

Question	Answer	Marks	Notes and guidance																									
1		1																										
	<table border="1"> <tr> <td>Pattern number</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Number of counters</td> <td>3</td> <td>5</td> <td>7</td> <td>9</td> <td>11</td> </tr> </table>	Pattern number	1	2	3	4	5	Number of counters	3	5	7	9	11	1														
Pattern number	1	2	3	4	5																							
Number of counters	3	5	7	9	11																							
2	e.g. It should be $\frac{5}{5} + \frac{9}{15}$, "She has forgotten to multiply the numerators"	1	Any valid reason																									
	$\frac{14}{15}$	1																										
3	0.59, 0.607, 0.625, 0.63	1																										
	34% , $\frac{2}{5}$, 0.41 , $\frac{6}{11}$, $\frac{7}{8}$	2	Award 1 mark for all numbers converted to the same form e.g. all percentages Award 1 mark for fully correct in reverse order																									
4	<table border="1"> <thead> <tr> <th>Date</th> <th>Description</th> <th>Credit (£)</th> <th>Debit (£)</th> <th>Balance (£)</th> </tr> </thead> <tbody> <tr> <td>01/02/2021</td> <td>Starting balance</td> <td></td> <td></td> <td>39.75</td> </tr> <tr> <td>04/02/2021</td> <td>Phone bill</td> <td></td> <td>35.00</td> <td><u>4.75</u></td> </tr> <tr> <td>05/02/2021</td> <td>Salary</td> <td>1207.65</td> <td></td> <td><u>1212.40</u></td> </tr> <tr> <td>09/02/2021</td> <td>Rent</td> <td></td> <td><u>527.32</u></td> <td>685.08</td> </tr> </tbody> </table>	Date	Description	Credit (£)	Debit (£)	Balance (£)	01/02/2021	Starting balance			39.75	04/02/2021	Phone bill		35.00	<u>4.75</u>	05/02/2021	Salary	1207.65		<u>1212.40</u>	09/02/2021	Rent		<u>527.32</u>	685.08	3	Award 1 mark for each correct answer Do not accept 1212.4 Follow through from incorrect earlier calculations to award the later marks
	Date	Description	Credit (£)	Debit (£)	Balance (£)																							
	01/02/2021	Starting balance			39.75																							
	04/02/2021	Phone bill		35.00	<u>4.75</u>																							
	05/02/2021	Salary	1207.65		<u>1212.40</u>																							
09/02/2021	Rent		<u>527.32</u>	685.08																								

Year 7 Spring Core Paper Mark Scheme

5	8	1	
	Draws bars with height 15 for Red and their "8" for yellow	1	Allow slight inaccuracy if intention clear.
6	5.9	2	Award 1 mark for attempt to find median from an ordered list e.g. 5.6 and 6.2 identified as the middle pair
	6.16	2	Award 1 mark for attempt to find total and then divide by 10
7	4.846514...	1	Award 1 mark for evidence of correct substitution
	5	1	Follow through their answer to the first part rounded to one significant figure
8	£0.90	2	Award 1 mark for any fully correct method e.g. $£1.50 \div 10 \times 6$ Do not accept £0.9 or $£\frac{9}{10}$ for 2 marks
9	146	3	Award 1 mark for area of rectangle e.g. 126 or 7×18 seen Award 1 mark for attempt to find dimensions and area of the triangle
10	$-20.7f$	1	
	62	2	Award 1 mark for correct method e.g. $17 +$ their 5×9 $17 - - 45$ seen

Year 7 Spring Core Paper Mark Scheme

11	$7\frac{41}{45}$	3	Award 2 marks for $\frac{356}{45}$ or equivalent seen, or equivalent mixed number not simplified. Award 1 mark for correct method e.g. $5 + 2 + \frac{2}{15} + \frac{7}{9}$ or $\frac{77}{15}$ and $\frac{25}{9}$ with attempt to find common denominators. No marks for just 7.91
12	£64.80	2	Award 1 mark for fully correct method e.g. correct partitioning of 36% and attempt to work out each part and the total, or 0.36×180 seen Do not accept 64.8 for second mark, but this does imply the first mark
13	No because e.g. “21 is not a multiple of 15”, “15 is not a factor of 21”, “1.4 is not an integer”	1	Must choose “No” and give a reason
14	e.g. “20% is equivalent to $\frac{1}{5}$ ”	1	Any reasonable explanation without calculation.
	e.g. $\frac{1}{8}$ of 729 = 91.125 15% of 607.5 = 91.125 So they are equal	2	Award 1 mark for correct calculation of either expression, e.g. 91.125 seen. For both marks, both expressions need to be found and statement that they are equal seen
15	Mo: n , Annie: $3n$, Ron: $3n - 5$ $n + 3n + 3n - 5 = 23$ $7n - 5 = 23$	2	Award 1 mark for expressions for Annie and Ron correctly found
	4	2	Award 1 mark for correct first step to solve $7n - 5 = 23$ e.g. adds 5 to both sides or divide all three terms by 7

Question	Answer	Marks	Notes and guidance
1	> < <	2	Award 1 mark for two correct symbols
2	15	1	.
	5	1	Follow through. 60 – 40 – their answer to the first part of the question
3	e.g. 24	1	Allow any multiple of 24 that is not a multiple of 30 e.g. 48, 96, 144... but not 120, 180, 240...
	e.g. 9	1	Allow any multiple of 9 that is not a multiple of 30 e.g. 9, 18, 27... but not 90, 180...
	1, 3	1	Allow any unambiguous answer e.g. “3 and 1”, {1, 3} etc.
4	e.g. “The angles add to 182 degrees but the angles in a triangle add up to 180 degrees”	1	Any clear explanation that references the fact that the total should be 180 degrees. Do not allow just e.g. “It’s 182 so it’s wrong”
	27	2	Award 1 mark for clear attempt to solve the equation $2x - 4 = 50$ or equivalent.
5	5 packs of bread rolls 3 packs of burgers	2	Award 1 mark for indication that 30 of each needed in total
	£11.50	1	Follow through their values for the amount of packs of bread rolls and burgers
6	-1	2	Award 1 mark for fully correct method i.e. attempt to add all the numbers and divide the answer by 4

Year 7 Summer Core Paper

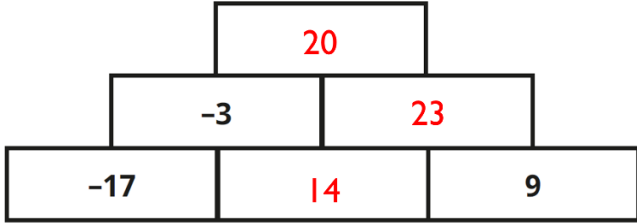
7	$\frac{36}{7}$	1																	
8	$\frac{2}{7}$	1																	
	Indicates 45, 5, 31 and 53	1	Allow any clear indication – circles, underlines, ticks etc.																
	Indicates 5, 31 and 53	1	Allow any clear indication – circles, underlines, ticks etc.																
9	77°	2	Award 1 mark for correct first step e.g. correctly evaluates any of the angles in the parallelogram (could be on diagram)																
10	Indicates $5x$	1	Allow any clear indication – circles, underlines, ticks etc.																
11	3	2	Award 1 mark for filling in at least the information given in the question correctly i.e. <table border="1" data-bbox="1294 869 2040 1082"> <thead> <tr> <th></th> <th>Triangles</th> <th>Quadrilaterals</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Blue</td> <td>15</td> <td>15</td> <td>30</td> </tr> <tr> <td>Orange</td> <td></td> <td>12</td> <td></td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td>45</td> </tr> </tbody> </table>		Triangles	Quadrilaterals	Total	Blue	15	15	30	Orange		12		Total			45
		Triangles	Quadrilaterals	Total															
Blue	15	15	30																
Orange		12																	
Total			45																
	$\frac{18}{45}$ or equivalent e.g. $\frac{6}{15}$, $\frac{2}{5}$, 40%, 0.4	1																	
12	72°	2	Award 1 mark for fully correct method i.e. attempt to subtract 2×54 from 180																
13	Fully correct triangle	3	Award 1 mark for at least one correct side ± 2 mm Award 1 mark for angle of 108 to 112°																

Year 7 Summer Core Paper



14	x with correct reason	1	e.g. equivalent fractions, converting to decimals, looking at distance from 1, bar model etc.
	$1\frac{7}{15}$	3	Award 2 marks for $\frac{22}{15}$ Award 1 mark for fully correct method at least as far as $\frac{12}{15} + \frac{10}{15}$
15	1.4%, 0.025, $\frac{14}{100}$, $\frac{1}{4}$, 0.4	2	Allow answers in any correct form. Award 1 mark for clear attempt to convert all expressions to the same format (allow 1 error)
	0.08	1	
	e.g. $45 = 9 \times 5$ $56 = 7 \times 8$ So $45 \times 56 = 9 \times 5 \times 7 \times 8$	1	Any clear explanation
	e.g. $63 \times 40 = 7 \times 9 \times 5 \times 8$ so they've got the same factors	1	Any clear explanation

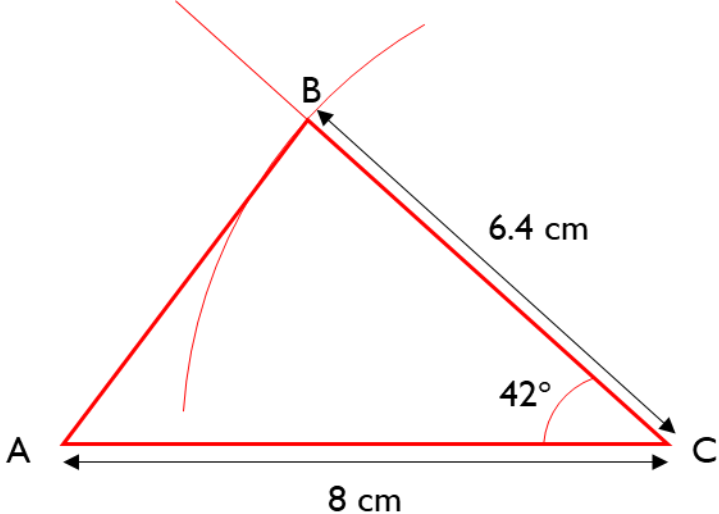
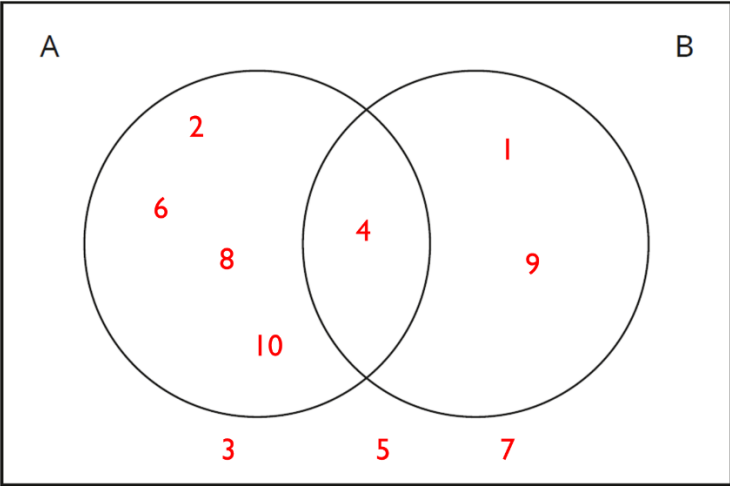
Year 7 Summer Core Paper Mark Scheme

Question	Answer	Marks	Notes and guidance
1	Sixty thousand	1	Must be in words, do not accept '60 thousand'
	Three hundredths	1	Must be in words, do not accept '3 hundredths'
	e.g. 0.008, 1.018, 99.99899 etc.	1	Accept any number in the where 8 is in the third decimal place.
2	-17.7147	1	Do not accept 17.7147
3	7	1	
	68	1	
4	$\frac{41}{100}$	1	
	33.3% or $33\frac{1}{3}\%$	1	Do not accept rounded answer.
5		2	Award 1 mark for 14 seen or correctly using "their 14" + 9 to obtain 2 nd row value and top value
6	Non-linear, because e.g. "the difference between successive terms changes"	1	Award the mark if non-linear is indicated and any reasonable explanation provided.
	e.g. "divide the previous term by 2"	1	Accept any equivalent explanation e.g. "Each term is half the previous term" etc.

Year 7 Summer Core Paper Mark Scheme

7	$8a + 2b$	2	Allow $2b + 8a$ Award 1 mark for any correct method to find the perimeter
	57	2	Follow through their expression for the perimeter Award 1 mark for evidence of substituting a and b into their expression for the perimeter or the given side lengths of rectangle
8	800 g	2	Award 1 mark fully correct method e.g. $\frac{4}{5}$ kg seen or implied
9	$100 - p$	1	
10	Inconsistent units	1	Accept any reasoning e.g. "One length is in cm but the other is in mm"
	6.9 cm^2 or 690 mm^2	2	Award 1 mark for a correct conversion between cm and mm seen
11	$\frac{4}{15}$	1	Allow any equivalent fraction, decimal or percentage
12	$2 \times 2 \times 2 \times 5 \times 7$	2	Allow equivalent e.g. $2^3 \times 5 \times 7$ Award 1 mark for correct method for finding prime factorisation with no more than one error
13	200	1	
	20	1	
	800	1	

Year 7 Summer Core Paper Mark Scheme

<p>14</p>	<p>e.g.</p> 	<p>Award 3 marks for fully correct labelled drawing.</p> <p>Award 1 mark for $\angle ACB$ drawn as $42^\circ \pm 1^\circ$</p> <p>Award 1 mark CB $6.4 \text{ cm} \pm 1 \text{ mm}$.</p> <p>3</p>
<p>15</p>	<p>ξ</p> 	<p>Award 1 mark for elements of at least one set correctly placed</p> <p>2</p>

Year 7 Summer Core Paper Mark Scheme

16	e.g. “Base <u>angles</u> in <u>isosceles</u> triangles are <u>equal</u> ”	1	Words underlined must be included in their explanation. Do not accept e.g. “Because it’s an isosceles triangle”
	20.8	1	
	20.8	2	Award 1 mark for correct method e.g. forming and attempting to solving equation of the form $5b + 76 = 180$
17	No with supported working	3	Award 1 mark for correctly finding volume of water in bucket B = $3\frac{4}{5}$ litres or equivalent Award 1 mark for correctly finding volume of water in bucket C = $2\frac{3}{4}$ litres or equivalent Award full marks for finding the sum of water from all buckets to be $10\frac{1}{20}$ or equivalent and correct conclusion If working in ml, total is $3500 + 3800 + 2750$ to give 10 050