

Cambridge Secondary 1 Progression Test

Mark scheme

Cambridge
Secondary 1

Mathematics

Stage 9



These tables give general guidelines on marking answers that involve number and place value, and units of length, mass, money, duration or time. If the mark scheme does not specify the correct answer, refer to these general guidelines.

Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00 m; 5.000 kg
Accept a comma as a decimal point if that is the convention that you have taught the children, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, money, duration or time, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85 m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and the question does not specify a particular unit for the answer	1.85 m	Correct conversions provided the unit is stated, e.g. 1 m 85 cm 185 cm 1850 mm 0.00185 km	1.85 185 m
If the unit is given on the answer line, e.g. m1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g.185 cm..... m185..... m1850..... m etc.
If the question states the unit that the answer should be given in, e.g. 'Give your answer in metres'	1.85 m	1.85 1 m 85 cm	185; 1850 Any conversions to other units, e.g. 185 cm

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	\$09 or \$09.00
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30 c; \$0.30 cents \$0-30; \$0=30; \$00:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30 cents; 0.30 cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line 30cents \$0.30cents 0.30cents \$30cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2 h 30 m; 02 h 30 m 5 min 24 sec; 00 h 05 m 24 s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2 h 3; 2.3 h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00.05:24; 05:24 s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

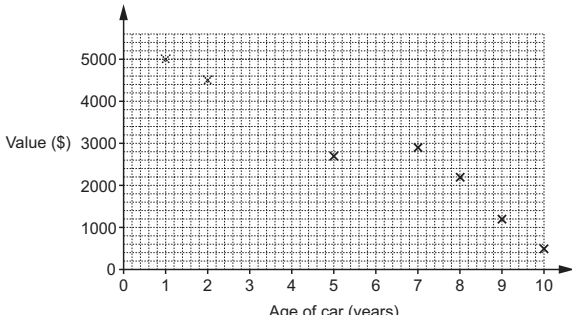
There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30	Incorrect or ambiguous formats, e.g.
0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning	07.3; 073; 07 3; 730; 73; 7.3; 7.3 am; 7.30 p.m.
Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty	
e.g. 19:00	
1900; 19 00; 19_00 etc.	19; 190; 19 000; 19.00 am; 7.00 am
Nineteen hundred (hours) Seven o'clock in the afternoon/evening	
Accept correct conversion to 12-hour clock, e.g. 16:42 4.42 p.m.	4.42 am; 0442; 4.42
Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening	Forty two (minutes) past sixteen Eighteen (minutes) to seventeen
Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon	

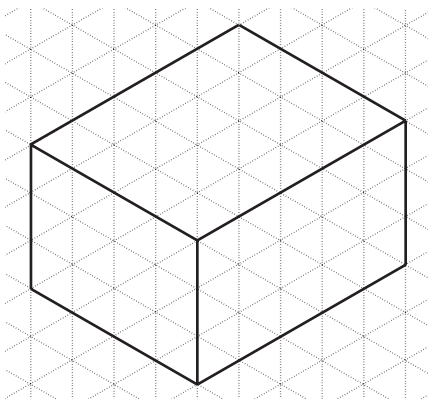
Stage 9 Paper 1 Mark Scheme

Question	1		
Part	Mark	Answer	Further Information
	1	15	
Total	1		

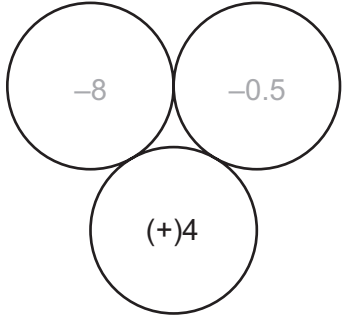
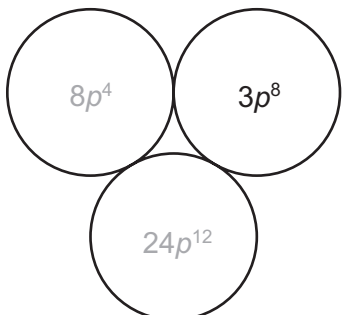
Question	2		
Part	Mark	Answer	Further Information
	1	72(°)	
Total	1		

Question	3		
Part	Mark	Answer	Further Information
(a)	2		<p>Tolerance ± 1 mm horizontally $\pm \\$100$ vertically</p> <p>Award 1 mark for at least 3 more correctly plotted points all within tolerance.</p>
(b)	1	Negative	<p>Ignore words describing the strength of the correlation. Accept '-ve' but not '-'</p>
Total	3		

Question	4		
Part	Mark	Answer	Further Information
	1	<div> <input checked="" type="checkbox"/> True <input type="checkbox"/> False </div> <div> <input type="checkbox"/> True <input checked="" type="checkbox"/> False </div> <div> <input type="checkbox"/> True <input checked="" type="checkbox"/> False </div>	Both are required for the mark.
Total	1		

Question	5		
Part	Mark	Answer	Further Information
(a)	1		Accept in any orientation. Lines should be ruled. Ignore hidden edges drawn.
(b)	1	3	
Total	2		

Question	6		
Part	Mark	Answer	Further Information
	1	3.2 <u>4.1</u> 5.6 8.4 23.3	Accept any clear indication.
Total	1		

Question	7		
Part	Mark	Answer	Further Information
(a)	1		
(b)	2		Award 1 mark for 3 and 1 mark for p^8 so long as expression is of form ap^b where a and b are non-zero numbers e.g. $3p^{16}$ and $16p^8$ would score 1, $3+p^8$ would score zero
Total	3		

Question	8		
Part	Mark	Answer	Further Information
(a)	1	$a(2a + 5)$	
(b)	1	$6(1 - 3x + 4y)$	
Total	2		

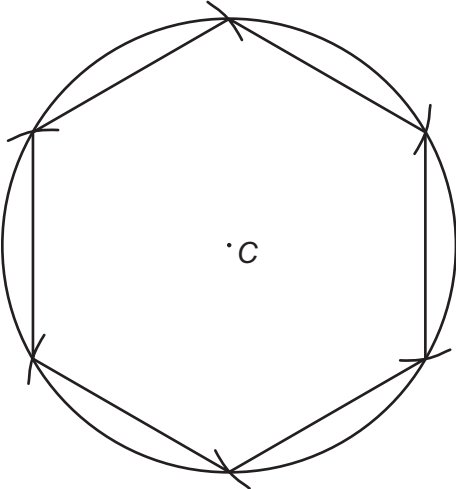
Question	9		
Part	Mark	Answer	Further Information
	2	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$0.5 + 1.5 \times 3$</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">18</div> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$3 \times (2 + 4)$</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">5</div> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$8 - 1 \times 2$</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">14</div> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$10 + 2^3 - 4$</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">40</div> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$(2^2 + 1) \times 8$</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">6</div> </div> </div>	Award 1 mark for 2 or 3 correct matches.
Total	2		

Question	10		
Part	Mark	Answer	Further Information
	2	$3\frac{23}{30}$ or equivalents such as $\frac{113}{30}$	<p>Award 1 mark for correct common denominator seen (30 or a multiple of 30) and at least one correct numerator, e.g.</p> $2\frac{5}{30} + 1\frac{18}{30}, \frac{65}{30} + \frac{48}{30}$
Total	2		

Question	11		
Part	Mark	Answer	Further Information
	2	Reflection (in the line) $y = 2$	Both reflection and (the line) $y = 2$ are required for 2 marks. Do not accept this as a drawing on the diagram, it must be a description. Award 1 mark for reflection or $y = 2$ seen.
Total	2		

Question	12		
Part	Mark	Answer	Further Information
	1	1	
Total	1		

Question	13		
Part	Mark	Answer	Further Information
(a)	1	24 730	
(b)	1	25 000	Follow through from their (a) as long as their (a) has more than 2 significant figures.
Total	2		

Question	14		
Part	Mark	Answer	Further Information
	2		<p>Award 1 mark for a regular hexagon (tolerance ± 2 mm and $\pm 2^\circ$)</p> <p>or</p> <p>6 construction arcs (must be arcs).</p>
Total	2		

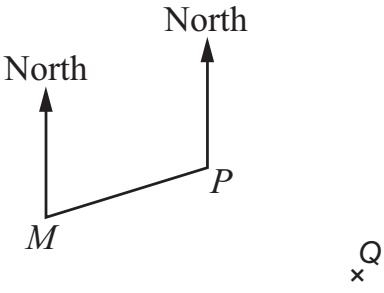
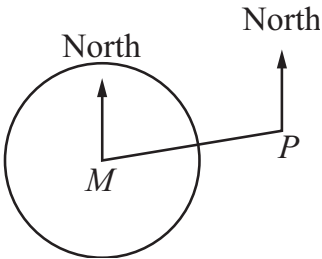
Question	15		
Part	Mark	Answer	Further Information
	1	$\frac{10}{12}$ $\frac{35}{42}$ $\frac{14}{18}$ $\frac{50}{60}$	
Total	1		

Question	16		
Part	Mark	Answer	Further Information
	2	$x^2 + 8x + 15$	<p>Award 1 mark for:</p> <p>$x^2 + 5x + 3x + 15$</p> <p>or</p> <p>$x^2 + ax + 15$</p> <p>or</p> <p>$x^2 + 8x + b$</p> <p>(where a and b are numbers not equal to 0)</p>
Total	2		

Question	17		
Part	Mark	Answer	Further Information
	1	$9^8 \div 9^8 = 9$ $6^8 \div 6^2 = 6^4$	$7 \times 7^3 = 7^4$ $2^3 \times 2^4 = 4^7$
Total	1		

Question	18		
Part	Mark	Answer	Further Information
	1	No and , reason, e.g. <ul style="list-style-type: none"> Bushra has multiplied 0.4 by 10 but hasn't multiplied 480 by 10 It should be 4800 not 48 The correct answer is 1200 but 48 divided by 4 is 12 	Any correct reason with a decision of 'no' scores the mark.
Total	1		

Question	19														
Part	Mark	Answer	Further Information												
(a)	2	72.5 (cm)	Award 1 mark for a correct method, e.g. $(43.5 \div 3) \times 5$ or for 14.5 seen												
(b)	2	<table border="1"> <tr> <td></td><td>Red</td><td>Yellow</td><td>Green</td></tr> <tr> <td>Number of blocks</td><td>10</td><td>10</td><td>30</td></tr> <tr> <td>Probability</td><td>$\frac{1}{5}$</td><td>$\frac{1}{5}$</td><td>$\frac{3}{5}$</td></tr> </table>		Red	Yellow	Green	Number of blocks	10	10	30	Probability	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{3}{5}$	Award 1 mark for 30 (Green blocks) correct or both fractions correct.
	Red	Yellow	Green												
Number of blocks	10	10	30												
Probability	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{3}{5}$												
Total	4														

Question	20		
Part	Mark	Answer	Further Information
(a)	1	$074(^{\circ}) \pm 2^{\circ}$.	Do not allow 74, must be three figures.
(b)	1		<p>School Q positioned 4 cm from School P at a bearing of 120°.</p> <p>Condone if not labelled providing there is not a choice of crosses. Award the mark if the point is $\pm 2\text{mm}$ and $\pm 2^{\circ}$.</p>
(c)	1		A circle of radius 3 cm $\pm 2\text{mm}$ centred on M.
Total	3		

Question	21		
Part	Mark	Answer	Further Information
	2	$(x =) 9$ $(y =) -13$	Award 1 mark for $3x = 27$ seen or equivalent correct method or one correct answer.
Total	2		

Question	22		
Part	Mark	Answer	Further Information
	2	36 (m)	Award 1 mark for use of Pythagoras' theorem, e.g. $15^2 - 12^2 = x^2$ or use of Pythagorean triples, e.g. 9 seen.
Total	2		

Question	23		
Part	Mark	Answer	Further Information
	1	<p>Ticks Team X and gives a suitable reason, e.g.</p> <ul style="list-style-type: none"> Team Y have a lower median score Team X have most of their scores in the 70s and 80s whereas team Y have most of their scores in the 50s and 60s 	<p>Any valid comparative comment.</p> <p>Condone</p> <ul style="list-style-type: none"> team X have more higher scores (than team Y) team X has a higher average score <p>Do not allow comments that are not comparative, e.g.</p> <ul style="list-style-type: none"> team X has lots of high scores
Total	1		

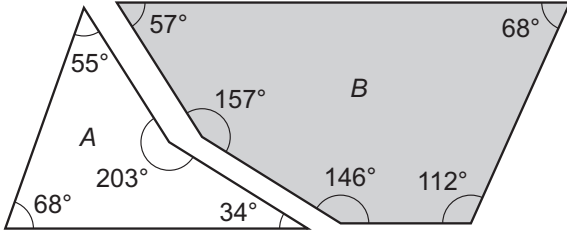
Question	24		
Part	Mark	Answer	Further Information
	3	$1\frac{1}{2}$	<p>For full marks the final answer must be simplified and must be a mixed number</p> <p>Award 2 marks for: a completely correct method, e.g. converting both fractions to improper fractions followed by an attempt to multiply by the reciprocal of the second e.g. $\frac{15}{8} \div \frac{5}{4}$ followed by $\frac{15}{8} \times \frac{4}{5}$</p> <p>or sight of a value equivalent to $1\frac{1}{2}$ but which is unsimplified or that is left as an improper fraction.</p> <p>Award 1 mark for: sight of either $\frac{15}{8}$ or $\frac{4}{5}$ or an attempt to multiply their first improper fraction by the reciprocal of their second improper fraction (if there is a mistake in the conversion).</p>
Total	3		

Stage 9 Paper 2 Mark Scheme

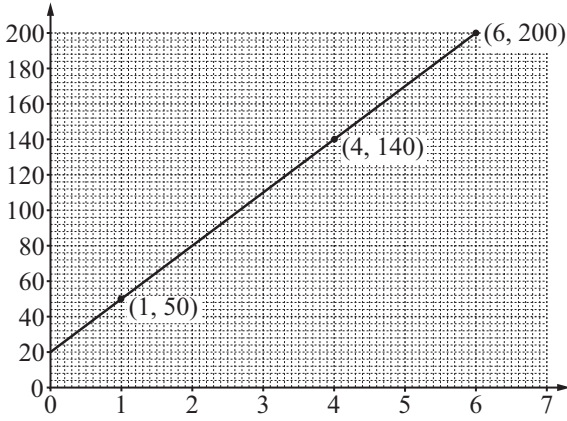
Question	1		
Part	Mark	Answer	Further Information
	1	(\$) 136	
Total	1		

Question	2		
Part	Mark	Answer	Further Information
	2	<p>Any two reasons from two different categories:</p> <ul style="list-style-type: none"> • sample size too small • bias relating to selecting from just one class (e.g. same subject, same age, same ability level) • this is not random sampling 	<p>Accept equivalent answers, e.g.</p> <ul style="list-style-type: none"> • he should ask more people • he should ask people from different classes <p>Note two marks can be scored in one sentence e.g. he should have asked more students and used more classes.</p> <p>Award 1 mark for only one correct reason or two reasons from the same category.</p>
Total	2		

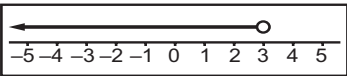
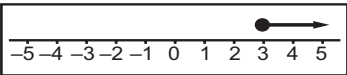
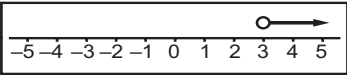
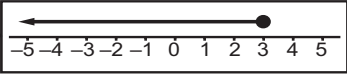
Question	3		
Part	Mark	Answer	Further Information
	2	4.43	Award 1 mark for a correct answer truncated or given to the wrong number of decimal places or for $\frac{31}{7}$ seen.
Total	2		

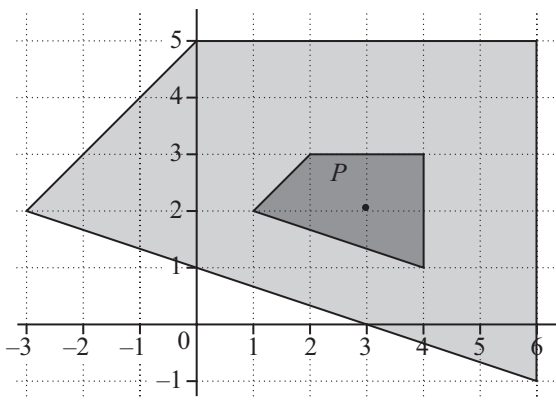
Question	4		
Part	Mark	Answer	Further Information
	2		<p>Degree symbols are not necessary.</p> <p>Award 1 mark for 2 or 3 correct answers.</p>
Total	2		

Question	5																																							
Part	Mark	Answer	Further Information																																					
	2	2.9 with working The minimum amount of working for 2 marks would be evidence of correctly evaluating $x^2 + 3x$ for two values of x between 2.85 and 2.94 that result in answers either side of 17 (likely to be 2.85 and 2.9).	Award 1 mark for evaluating two values of x ($2 < x < 3$) possible values are given below for reference or an answer of 2.9 with no working.																																					
			x	$x^2 + 3x$	2.1	10.71	2.2	11.44	2.3	12.19	2.4	12.96	2.5	13.75	2.6	14.56	2.7	15.39	2.8	16.24	2.85	16.6725	2.86	16.7596	2.87	16.8469	2.88	16.9344	2.89	17.0221	2.9	17.11	2.91	17.1981	2.92	17.2864	2.93	17.3749	2.94	17.4636
			x	$x^2 + 3x$																																				
			2.1	10.71																																				
			2.2	11.44																																				
			2.3	12.19																																				
			2.4	12.96																																				
			2.5	13.75																																				
			2.6	14.56																																				
			2.7	15.39																																				
			2.8	16.24																																				
			2.85	16.6725																																				
			2.86	16.7596																																				
			2.87	16.8469																																				
			2.88	16.9344																																				
			2.89	17.0221																																				
			2.9	17.11																																				
			2.91	17.1981																																				
			2.92	17.2864																																				
			2.93	17.3749																																				
2.94	17.4636																																							
Total	2																																							

Question	6		
Part	Mark	Answer	Further Information
(a)	1		Line must be ruled for the mark. It is not necessary to see the points plotted provided the line passes through all three points. The line does not need to pass through the point (0, 20).
(b)	1	(\$) 20	Follow through using the intercept from their single straight line graph as long as their answer is greater than 0.
(c)	1	(\$) 30 (per hour)	Follow through using the gradient from their single straight line graph.
Total	3		

Question	7		
Part	Mark	Answer	Further Information
	1	No and a correct reason, e.g. <ul style="list-style-type: none"> • $360^\circ \div 135^\circ$ is not an integer • putting two 135° angles together leaves a remainder of 90° • an octagon needs a square to tessellate with • the only regular shapes that tessellate are triangles, squares and hexagons 	Do not accept “there will be gaps” without supporting evidence, e.g. a correct calculation or diagram.
Total	1		

Question	8		
Part	Mark	Answer	Further Information
	1	<p>Inequality</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">$x > 3$</div> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">$x \leq 3$</div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="border: 1px solid black; padding: 5px;"> <p>Solution set</p>  </div> <div style="border: 1px solid black; padding: 5px;">  </div> <div style="border: 1px solid black; padding: 5px;">  </div> <div style="border: 1px solid black; padding: 5px;">  </div> </div> </div> <p>Both lines must be correct for the mark.</p>	
Total	1		

Question	9		
Part	Mark	Answer	Further Information
	2		<p>Award 1 mark for 3 out of the 4 vertices correctly plotted or for a quadrilateral enlarged by a scale factor of 3 but in the wrong place.</p> <p>Labels are not required.</p>
Total	2		

Question	10		
Part	Mark	Answer	Further Information
	1	$\frac{5}{x}$	
Total	1		

Question	11		
Part	Mark	Answer	Further Information
	1	$\frac{1}{2}(4.5 + 5.2) \times 6$ $4.5 \times 5.2 \times 6$ $4.5 \times 5.2 \times 6 \div 2$ $\frac{1}{3} \times 4.5 \times 5.2 \times 6$	Accept any clear indication.
Total	1		

Question	12		
Part	Mark	Answer	Further Information
	1	57.8 or equivalent	
Total	1		

Question	13		
Part	Mark	Answer	Further Information
	2	28.3 (cm)	<p>Award 2 marks for an answer in the range 28.27 to 28.3</p> <p>Award 1 mark for $\frac{2 \times \pi \times 5.5}{(2)}$ (+11) or $\pi \times 5.5$ (+11)</p>
Total	2		

Question	14		
Part	Mark	Answer	Further Information
	2		<p>Award 1 mark for each correct completed cell or their inverse function matching their reverse mapping.</p> <p>Condone any letter in place of the m.</p>
Total	2		

Question	15		
Part	Mark	Answer	Further Information
	1	<div>Primary</div> <div><input checked="" type="checkbox"/></div> <div><input type="checkbox"/></div> <div><input type="checkbox"/></div> <div>Secondary</div> <div><input type="checkbox"/></div> <div><input checked="" type="checkbox"/></div> <div><input checked="" type="checkbox"/></div>	All three must be correct for the mark.
Total	1		

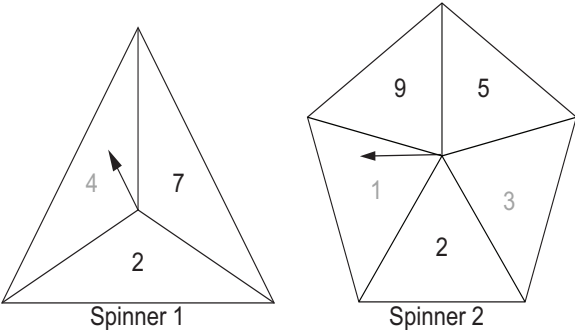
Question	16		
Part	Mark	Answer	Further Information
	2	94 (%)	Award 1 mark for $\frac{66.93 - 34.5}{34.5}$ or 0.94
Total	2		

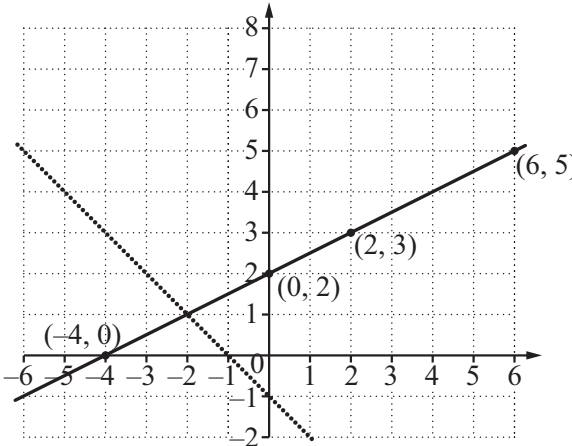
Question	17		
Part	Mark	Answer	Further Information
	2	50	Award 1 mark for $20 \div 2$ seen or implied
Total	2		

Question	18		
Part	Mark	Answer	Further Information
	2	$(x =) \frac{y}{5} - t$ or $(x =) \frac{y - 5t}{5}$	Award 1 mark for a correct first step that affects both sides of the equation, e.g. <ul style="list-style-type: none"> $\frac{y}{5} = t + x$ $y - 5t = 5x$
Total	2		

Question	19						
Part	Mark	Answer					Further Information
	2	5%	0.3	$\frac{1}{3}$	$\frac{9}{20}$	1	Accept numbers in same form in correct order for 2, e.g. 0.05 0.3 0.33(...) 0.45 1 Award 1 mark for values correctly converted to the same form allowing one error or omission: 1, 0.3, 0.33..., 0.05, 0.45 or $\frac{60}{60}$, $\frac{18}{60}$, $\frac{20}{60}$, $\frac{3}{60}$, $\frac{27}{60}$ (other denominators are possible providing denominators are equal) or 100%, 30%, 33.3..%, 5%, 45% or for values correctly written in reverse order
Total	2						

Question	20				
Part	Mark	Answer		Further Information	
	1	<div><input type="checkbox"/> True</div>	<div><input checked="" type="checkbox"/> False</div>	Both are required for the mark.	
		<div><input checked="" type="checkbox"/> True</div>	<div><input type="checkbox"/> False</div>		
		<div><input checked="" type="checkbox"/> True</div>	<div><input type="checkbox"/> False</div>		
Total	1				

Question	21																												
Part	Mark	Answer		Further Information																									
	2	 <p>Spinner 1</p> <p>Spinner 2</p>		<p>Award 2 marks for all five numbers correct. Numbers can be in any position in the correct spinner.</p> <p>Award 1 mark for three correct numbers or for a correctly completed sample space diagram:</p> <table border="1"> <tr> <td></td><td>1</td><td>5</td><td>3</td><td>2</td><td>9</td></tr> <tr> <td>7</td><td>7,1</td><td>7,5</td><td>7,3</td><td>7,2</td><td>7,9</td></tr> <tr> <td>4</td><td>4,1</td><td>4,5</td><td>4,3</td><td>4,2</td><td>4,9</td></tr> <tr> <td>2</td><td>2,1</td><td>2,5</td><td>2,3</td><td>2,2</td><td>2,9</td></tr> </table>			1	5	3	2	9	7	7,1	7,5	7,3	7,2	7,9	4	4,1	4,5	4,3	4,2	4,9	2	2,1	2,5	2,3	2,2	2,9
	1	5	3	2	9																								
7	7,1	7,5	7,3	7,2	7,9																								
4	4,1	4,5	4,3	4,2	4,9																								
2	2,1	2,5	2,3	2,2	2,9																								
Total	2																												

Question	22																
Part	Mark	Answer					Further Information										
(a)	2	<table><tr><td>x</td><td>-4</td><td>0</td><td>2</td><td>6</td></tr><tr><td>y</td><td>0</td><td>2</td><td>3</td><td>5</td></tr></table>	x	-4	0	2	6	y	0	2	3	5					Award 1 mark for 2 correct values in the table.
x	-4	0	2	6													
y	0	2	3	5													
(b)	1						Line needs to extend between at least 3 out of the 4 points and must be ruled for the mark. Follow through their values as long as they are in a straight line.										
(c)	1	$x = -2$ $y = 1$					Both are required for the mark and depend on graph values seen. If incorrect, follow through from any single line intersecting $y + x = -1$ (must be within the grid). Algebraic solution not evidenced by graph scores zero.										
Total	4																

Question	23		
Part	Mark	Answer	Further Information
(a)	1	32 and 12	Both are required for the mark.
(b)	1	<div><div><input type="checkbox"/></div> True</div> <div><div><input checked="" type="checkbox"/></div> False</div> <div><div><input type="checkbox"/></div> True</div> <div><div><input checked="" type="checkbox"/></div> False</div>	Both are required for the mark.
Total	2		

Question	24		
Part	Mark	Answer	Further Information
(a)	2	6000 (m ²)	Award 1 mark for: finding one of the missing lengths 240, 100 or 300 (may be marked in the correct place on the diagram) or 60×100 or $48000 \div 200$ or 90 000 (m ²) or 24 000 (m ²)
(b)	1	4.8 (hectares)	
Total	3		

Question	25		
Part	Mark	Answer	Further Information
	1	A decision of no and any correct explanation, e.g. <ul style="list-style-type: none"> Height and number of weeks are unlikely to be directly proportional The plant is unlikely to continue growing at the same rate 	Allow 832cm is an unlikely height in just 2 years. or There is no basis for her initial assertion as she has only one measurement (or words to that effect) Do not accept “yes, because $104 \times 8 = 832$ ”.
Total	1		

Stage 9 Paper 3 Mark Scheme

Question	Mark	Answer
1	$\frac{1}{2}$	5.1
2	$\frac{1}{2}$	$x(3x - 4)$ or $3x^2 - 4x$
3	$\frac{1}{2}$	4
4	$\frac{1}{2}$	6
5	$\frac{1}{2}$	(Customers are) increasing or going up or rising
6	$\frac{1}{2}$	11
7	$\frac{1}{2}$	(\$) 3.30
8	$\frac{1}{2}$	Angle, centre and direction (of rotation)
9	$\frac{1}{2}$	3.6
10	$\frac{1}{2}$	$63(^{\circ})$ and 4 (cm)
11	$\frac{1}{2}$	$6x^5$
12	$\frac{1}{2}$	$\frac{1}{10}$ 10% 0.01 10^{-1}
13	$\frac{1}{2}$	Thursday and Friday (or Thurs and Fri)
14	$\frac{1}{2}$	$2x - 4$ or $2(x - 2)$
15	$\frac{1}{2}$	280 (km)
16	$\frac{1}{2}$	$3n - 1$
17	$\frac{1}{2}$	$\frac{1}{4}$ or 0.25
18	$\frac{1}{2}$	$c = 2n$ or $n = \frac{c}{2}$
19	$\frac{1}{2}$	12
20	$\frac{1}{2}$	3200 (mm ³)

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