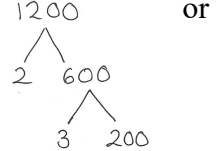
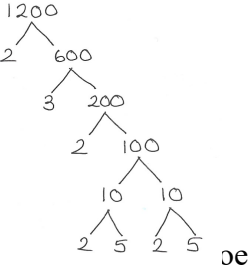


Practice Tests Set 22 – 2H-3H mark scheme

Qn	Working	Answer	Mark	Notes
1	$5 \times 12 (= 60)$ or $\frac{15+7-2+23+x}{5} = 12$ oe or $\frac{x + "43"}{5} = 12$		3	M1 for a method to find the total of the 5 numbers or setting up an equation in x "43" comes from $15 + 7 - 2 + 23$
	$x + 15 + 7 - 2 + 23 = "60"$ or $x + "43" = "60"$ or $"60" - (15 + 7 - 2 + 23)$			M1 for forming an equation with their 60 or for a complete calculation to find the value of x "43" comes from $15 + 7 - 2 + 23$
		17		A1
				Total 3 marks

Qn	Working	Answer	Mark	Notes
2 (a)		8 800 000	1	B1
(b)		Barcelona	1	B1 accept 5.5×10^6
(c)	$3.7 \times 10^7 - 7.7 \times 10^6$ or 29 300 000 oe or 37 000 000 – 7 700 000 or 29 000 000 oe or $0.29(3) \times 10^8$ or $29(.3) \times 10^6$		2	M1 allow $2.9(3) \times 10^n$ ($n \neq 7$)
		2.9×10^7		A1 accept -2.9×10^7 accept 2.93×10^7 or -2.93×10^7
				Total 4 marks

Qn	Working	Answer	Mark	Notes
3	eg $10p = 3p - 5$ or $p = \frac{3p}{10} - \frac{5}{10}$ oe eg $p = 0.3p - 0.5$		3	M1 for a correct first step – multiplying both sides by 10 correctly or writing the RHS as 2 terms each over 10 or each term as a decimal [must be in a correct equation]
	eg $10p - 3p = -5$ or $7p = -5$ or $p - \frac{3p}{10} = -\frac{5}{10}$ or $0.7p = -0.5$			M1ft (ft a 3 term equation) for collecting terms in p on one side and number the other
		$-\frac{5}{7}$		A1 (dep on at least M1) for $-\frac{5}{7}$ oe, accept $-0.71(4\dots)$ allow -0.7 if you have seen $-\frac{5}{7}$ or $-5 \div 7$
				Total 3 marks

Qn	Working	Answer	Mark	Notes																
4	eg $2 \times 2 \times 300$ $2 \times 5 \times 120$ $2 \times 3 \times 200$ $3 \times 5 \times 80$ or eg  or <table border="1" data-bbox="743 400 940 542"> <tr><td>2</td><td>1200</td></tr> <tr><td>3</td><td>600</td></tr> <tr><td></td><td>200</td></tr> </table>	2	1200	3	600		200		3	M1 for at least 2 correct stages in prime factorisation which give 2 prime factors – may be in a factor tree or a table or listed eg 2, 2, 300 (allow no more than one mistake ft (eg <i>one mistake</i> with 2 prime factors ft $1200 = 20 \times 600 = 2 \times 10 \times 3 \times 200$))										
2	1200																			
3	600																			
	200																			
	2, 2, 2, 2, 3, 5, 5 or  or <table border="1" data-bbox="743 576 940 949"> <tr><td>2</td><td>1200</td></tr> <tr><td>3</td><td>600</td></tr> <tr><td>2</td><td>200</td></tr> <tr><td>5</td><td>100</td></tr> <tr><td>2</td><td>20</td></tr> <tr><td>5</td><td>10</td></tr> <tr><td>2</td><td>2</td></tr> <tr><td></td><td>(1)</td></tr> </table>	2	1200	3	600	2	200	5	100	2	20	5	10	2	2		(1)			M1 for finding the correct prime factors condone inclusion of 1 (may be seen in a fully correct factor tree or ladder)
2	1200																			
3	600																			
2	200																			
5	100																			
2	20																			
5	10																			
2	2																			
	(1)																			
		$2^4 \times 3 \times 5^2$		A1 (dep on M2 as working requested) Can be in any order (allow $2^4 \cdot 3 \cdot 5^2$) but must be in index form as asked for.																
				Total 3 marks																

Qn	Working	Answer	Mark	Notes	
5	$18000 \times 0.15 (= 2700)$ oe or $18000 \times 0.85 (= 15\,300)$ oe		3	M1 for finding 15% or 85% of 18 000	M2 for 18000×0.85^4 oe or $18000 \times 0.85^5 (= 7986.(69\dots))$ oe
	eg 18000×0.85^4 oe or $15300 \times 0.85 \times 0.85 \times 0.85$ oe or $15300 \times 0.85 (= 13005)$ oe and $13005 \times 0.85 (= 11054.25)$ oe and 11054.25×0.85 oe			M1 (dep) for a complete method	
		9396		A1 awrt 9396 If no marks awarded, award SCB1 for or $18000 \times 0.85^2 (= 13\,005)$ oe or $18000 \times 0.85^3 (= 11\,054.(25))$ oe or $18\,000 \times 0.4 (= 7200)$ oe or $18\,000 \times 1.15 (= 20700)$ oe or $18\,000 \times 1.15^4 (= 31482.(1125))$ oe	
				Total 3 marks	

Qn	Working	Answer	Mark	Notes
6	$1 + 0.12 (= 1.12)$ oe or $100(\%) + 12(\%) (=112(\%))$ or $\frac{18.20}{112} (= \frac{13}{80} = 0.1625)$ or $x + 0.12x = 18.2(0)$ or $x \times 1.12 = 18.2(0)$		3	M1
	eg $18.2(0) \div "(1 + 0.12)"$ oe or $\frac{18.2(0)}{"112"} \times 100$ oe			M1 for a complete method
		16.25		A1
				Total 3 marks

Qn	Working	Answer	Mark	Notes
7	$(AB^2 =) 7.5^2 - 6^2 (= 20.25)$ or eg $(BAC =) \sin^{-1}\left(\frac{6}{7.5}\right) (= 53.1\dots)$ or $\cos(BCA) = \frac{6}{7.5} (= 0.8)$		6	M1 for a correct first step to find AB or a complete method to find angle BAC or a correct first step to find angle BCA
	$(AB =) \sqrt{7.5^2 - 6^2} (= 4.5)$ or $(AB =) \frac{6}{\tan "53.1"} (= 4.5\dots)$ or $(AB =) 7.5 \cos "53.1" (= 4.5\dots)$ or $(BCA =) \cos^{-1}\left(\frac{6}{7.5}\right) (= 36.8\dots)$			M1 for a complete method to find AB or angle BCA
	$(\text{Area } ABC =) \frac{1}{2} \times 6 \times "4.5" (= 13.5)$ or $(\text{Area } ABC =) \frac{1}{2} \times 6 \times 7.5 \times \sin("36.8") (= 13.47\dots \text{ or } 13.5)$			M1 ft [their labelled AB] or [their labelled BCA] eg for $\frac{1}{2} \times 6 \times$ [their labelled AB] or $\frac{1}{2} \times 6 \times 7.5 \times \sin$ [their labelled BCA]
	$(\text{Area } DAC =) 31.5 - "13.5" (= 18)$ or $"13.5" + 0.5 \times 7.5 \times AD = 31.5$ oe			M1 ft (dep on previous M1) allow $31.5 -$ [their area]
	$(AD =) ("18" \div 7.5) \div 0.5$ oe			M1 for a complete method to find AD , dependent on correct working
				4.8
				Total 6 marks

Qn	Working	Answer	Mark	Notes
8	eg ($V=$) $\pi \times \left(\frac{18}{2}\right)^2 \times 3.5$ (= 890.(64...) or $\frac{567}{2}\pi$)		3	M1 correct method to calculate volume
	eg $(7.04 \times 1000) \div$ “890.64”			M1 correct method to calculate density (if volume is incorrect, their value can be used if clearly labelled) accept use of 7.04 or an incorrect conversion from kg to g for mass
		7.9		A1 accept 7.9 – 7.92
				Total 3 marks

Qn	Working	Answer	Mark	Notes
9	$\sqrt{36}(= 6)$ or 6 or 6×6		4	M1 for method to find the length of the square – may be seen in later working
	eg $\pi \times \left(\frac{[\text{their } 6]}{2}\right)^2 \div 2 (= 14.1\dots \text{ or } 4.5\pi \text{ or } \frac{9}{2}\pi)$ or $\pi \times \left(\frac{[\text{their } 6]}{2}\right)^2 (= 28.2\dots \text{ or } 9\pi)$			M1 for method to find the area of one semicircle or circle or the incorrect number of semicircles or circles provided correct area of circle formula is seen for [their 6] allow any value if there is a clear implication this is their side length of square.
	eg $4 \times \text{“14.1”} (= 56.5\dots \text{ or } 18\pi)$ or $2 \times \text{“28.2”} (= 56.5\dots \text{ or } 18\pi)$			M1 ft dep on previous M1 for a complete method to find the total area of the semicircles [if the pupil multiplies again and uses the incorrect number of circles or semicircles this mark is not awarded]
		92.5		A1 accept 92.4 – 92.6 (not in terms of π)
				Total 4 marks

Qn	Working	Answer	Mark	Notes
10	$\text{eg } \tan BAP = \frac{2}{5} \text{ or}$ $\sin BAP = \frac{2}{\sqrt{5^2 + 2^2}} \text{ or } \frac{\sin BAP}{2} = \frac{\sin 90}{\sqrt{5^2 + 2^2}}$ $\cos BAP = \frac{5}{\sqrt{5^2 + 2^2}} \text{ or } \cos BAP = \frac{5^2 + (\sqrt{5^2 + 2^2})^2 - 2^2}{2 \times 5 \times \sqrt{29}}$		5	M1 for setting up a trig equation for angle BAP
	$\text{eg } (BAP =) \tan^{-1}\left(\frac{2}{5}\right) (= 21.8\dots) \text{ or}$ $(BAP =) \sin^{-1}\left(\frac{2}{\sqrt{5^2 + 2^2}}\right) \text{ or } (BAP =) \sin^{-1}\left(\frac{2 \sin 90}{\sqrt{5^2 + 2^2}}\right)$ $(BAP =) \cos^{-1}\left(\frac{5}{\sqrt{5^2 + 2^2}}\right) \text{ or } BAP = \cos^{-1}\left(\frac{5^2 + (\sqrt{5^2 + 2^2})^2 - 2^2}{2 \times 5 \times \sqrt{5^2 + 2^2}}\right)$			M1 for a complete method to find angle $BAP (= 21.8\dots)$ [M2 for $90 - \tan^{-1} \frac{5}{2}$ ie $90 - 68.2$]
	$\text{eg (int angle =) } (6 - 2) \times 180 \div 6 (= 120)$ $\text{or (ext angle =) } 360 \div 6 (= 60)$			M1 Indep for a method to find the size of one interior or one exterior angle in a regular hexagon – could be seen on diagram
	eg “120” – “21.8” or 180 – “60” – “21.8”			M1 for a complete method to find angle PAF where all values have come from a correct method
		98.2		A1 accept 98.1 – 98.3
				Total 5 marks

Qn	Working	Answer	Mark	Notes
11 (a)		$3^2 \times 5 \times 7$	1	B1 accept $3 \times 3 \times 5 \times 7$ oe or 315
11 (b)		$3^{11} \times 5^7 \times 7^5$	2	B2 fully correct answer (allow $x = 11, y = 7, z = 5$) (B1 for an answer in the form $3^p \times 5^q \times 7^r$ where one or two of p, q or r are correct)
				Total 3 marks

Qn	Working	Answer	Mark	Notes
12	eg $0.45 \times 180 (= 81)$ oe OR $\frac{15}{180} \left(= \frac{1}{12} \text{ or } 0.0833\dots \right)$ OR $\frac{15}{180} \times 100 (= 8.3(33\dots)\%)$		4	M1 for a method to find the number of students studying German OR the number of students studying French as a fraction or decimal of the total students OR a method to find the percentage of students studying French 81 may be seen as part of an equation
	eg $180 - 15 - "81" (= 84)$ or $"81" + 15 (= 96)$ OR $1 - \left(\frac{1}{12} + \frac{45}{100} \right) = \left(\frac{7}{15} \text{ or } 0.466\dots \right)$ or $\frac{1}{12} + \frac{45}{100} = \left(\frac{8}{15} \text{ or } 0.533\dots \right)$ OR $100 - ("8.3" + 45) (= 46.6(66\dots) \text{ or } 46.7\%)$ or $"8.3" + 45 (= 53.3(33\dots) \text{ or } 53.3\%)$			M1 for a method to find the number of students studying Italian/Spanish or French/German OR a method to find the fraction or decimal of students studying Italian/Spanish or French/German OR a method to find the percentage of students studying Italian/Spanish or French/German 84 or 96 may be seen as part of an equation
	eg $\frac{"84"}{180 - "84"} (\times 100) \left(= \frac{7}{8} \text{ or } 0.875 \right)$ or $\frac{"84"}{"96"} (\times 100) \left(= \frac{7}{8} \text{ or } 0.875 \right)$ or $\frac{7}{15} \div \frac{8}{15} \left(= \frac{7}{8} \text{ or } 0.875 \right)$ or $\frac{"46.6"}{"53.3"} (\times 100) (= 0.872\dots)$			M1 for a complete method to find the fraction or decimal or percentage of Italian/Spanish to French/German
		87.5		A1 accept 87.2 – 87.7

Qn	Working	Answer	Mark	Notes
13	$PRS = 90$ or $PQS = 90$ or $PSR = 180 - 136 (= 44)$		3	M1 may be seen on diagram. Must be labelled on diagram or identified using 3 letter notation.
	$RPS = 180 - 90 - "44"$ oe or $RQS = 136 - 90 (= 46)$			M1 for a complete method
		46		A1
				Total 3 marks

Qn	Working	Answer	Mark	Notes
14	eg $2 \times \pi \times 5.2 (= 32.6... \text{ or } \frac{52}{5} \pi)$ oe		3	M1 for finding the whole circumference or the arc length
	$\frac{67}{360} \times 2 \times \pi \times 5.2 (= 6.08... \text{ or } \frac{871}{450} \pi)$ oe			
	$\frac{67}{360} \times 2 \times \pi \times 5.2 + 2 \times 5.2$ oe			M1 for a complete method
		16.5		A1 accept 16.4 - 16.5 (not in terms of π)
				Total 3 marks

Qn	Working	Answer	Mark	Notes
15	eg $\frac{158+C}{2} = 160$ or $(C =) 160 + (160 - 158) (= 162)$ oe or $C = 162$		3	M1 for method to find Candela's height or Candela's height or Candela's height in the wrong place on the answer line
	eg $(D =) 175 - 21 (= 154)$ oe			M1 indep for method to find Diana's height or Diana's height or Diana's height in the wrong place on the answer line
		Candela 162 Diana 154		A1 Correctly attributed If no marks awarded, SCB1 for Candela's height 179
				Total 3 marks

Qn	Working	Answer	Mark	Notes
16	$\frac{1}{2} \times 6 \times 11 \times \sin 118 (= 29.1\dots)$		3	M1 for the area of half of the kite
	eg $2 \times \frac{1}{2} \times 6 \times 11 \times \sin 118$			M1 for a complete method
		58.3		A1 accept 58.2 – 58.3
				Total 3 marks

Qn	Working	Answer	Mark	Notes
17 (a)	eg $6 \times 2.4 + 5 \times 3.5$		2	M1
		31.9		A1 oe
(b)	$(W =) 5.9n$ or $(W =) 5.9(n - 1) + 2.4$ or $(W =) 2.4n + 3.5(n - 1)$		2	M1 for $2.4n + 3.5n$ or $5.9n$ seen
		$5.9n - 3.5$		A1 oe but must be in simplest form eg $-3.5 + 5.9n$
				Total 4 marks

Qn	Working	Answer	Mark	Notes
18	77.5 or 82.5 or 2.65 or 2.75 or 32.5 or 33.5 or 0.95 or 1.05 or 77500 or 82500 or 159 or 165 or 32500 or 33500 or 57 or 63		4	B1 For a <i>UB</i> or <i>LB</i> for one of the distances or times in hours or in minutes
	eg $82.5 \div 2.65 (= 31.13\dots)$ or $82500 \div 159 (= 518.867\dots)$ or km/min or m/h			M1 for a method to find the upper bound of Kaidan's average speed eg $UB_K \div LB_K$ where $80 < UB_K \leq 82.5$ and $2.65 \leq LB_K < 2.7$ or use of m/min to find upper bound for Kaidan's average speed eg $UB_K \div LB_K$ where $80000 < UB_K \leq 82500$ and $159 \leq LB_K < 162$ can use km/min or m/h
	eg $32.5 \div 1.05 (= 30.95\dots)$ or $32500 \div 63 (= 515.873\dots\dots)$ or km/min or m/h			M1 indep for a method to find the lower bound of Sonja's average speed eg $LB_S \div UB_S$ where $32.5 \leq LB_S < 33$ and $1 < UB_S \leq 1.05$ or use of m/min to find lower bound for Sonja's average speed $LB_S \div UB_S$ where $32500 \leq LB_S < 33000$ and $60 < UB_S \leq 63$ can use km/min or m/h
	$UB K = 31132\dots\dots\text{m/h}$ $LB S = 30952\dots\dots\text{m/h}$ $UB K = 0.51886\dots\text{km/min}$ $LB S = 0.51587\dots\text{km/min}$	Shown		A1 shown with accurate figures in the same units – sufficient figures for comparison (can be truncated) but must be from correct working and <i>UB</i> for Kaidan and <i>LB</i> for Sonja selected eg UB Kaidan = 31.13... (km/h) and LB Sonja = 30.95...(km/h) or UB Kaidan = 518.867...(m/min) and LB Sonja = 515.873...(m/min) (dep on correct method)
				Total 4 marks

Qn	Working	Answer	Mark	Notes	
19	(area PQS =) $\frac{1}{2} \times 6.1 \times 3.8 \times \sin P = 9$ or (area PQRS =) $6.1 \times 3.8 \times \sin P = 18$	$\frac{1}{2} \times 6.1 \times SX = 9$ or $(SX =) \frac{9}{\frac{1}{2} \times 6.1} (= 2.95...)$ or $6.1 \times SX = 18$ or $(SX =) 18 \div 6.1 (= 2.95...)$		5	M1 correct equation for the area of the triangle or parallelogram or a calculation to find the height of the parallelogram (where X is the point vertically below S on PQ)
	eg $(\sin P =) \frac{9}{\frac{1}{2} \times 6.1 \times 3.8} (= 0.776... \text{ or } \frac{900}{1159})$ or $(\sin P =) \frac{18}{6.1 \times 3.8} (= 0.776... \text{ or } \frac{900}{1159})$	$(PX^2 =) 3.8^2 - "2.95..."^2 (= 5.73...)$ or $(PX =) \sqrt{3.8^2 - "2.95..."^2} (= 2.39...)$			M1 correct expression for $\sin P$ OR for start of Pythagoras method to find length of PX (where X is the point vertically below S on PQ)
	$(P =) \sin^{-1} "0.776..." (= 50.9...)$	$(QX =) 6.1 - \sqrt{"5.73..."} (= 3.70...)$ or $(QX =) 6.1 - "2.39" (= 3.70...)$			M1 for complete method to find angle P OR for method to find length of QX
	$(QS^2 =) 3.8^2 + 6.1^2 - 2 \times 3.8 \times 6.1 \times \cos("50.9") (= 22.4...)$ or $(QS =) \sqrt{3.8^2 + 6.1^2 - 2 \times 3.8 \times 6.1 \times \cos("50.9")}$	$(QS^2 =) "2.95..."^2 + "3.70..."^2 (= 22.4...)$ or $(QS =) \sqrt{"2.95..."^2 + "3.70..."^2}$			M1 correct expression for QS^2 (or QS)
			4.74		A1 accept 4.73 – 4.74
				Total 5 marks	

Qn	Working	Answer	Mark	Notes
20	eg $(x =) 4 - (6 - 4) (= 2)$ $(y =) 7 - (11 - 7) (= 3)$ or (2, 3)		4	M1 for a method to find the coordinates of P (accept coordinates of P informally eg separately or as a vector)
	eg $\frac{11-7}{6-4} (= 2)$ or $\frac{11-[3]}{6-[2]} (= 2)$ oe or $\frac{[3]-7}{[2]-4} (= 2)$ oe			M1 (indep if using coordinates of A & O) for a method to find the gradient of AOP (can use their coordinates of P)
	eg $-1 \div [2] (= -0.5)$ oe			M1ft for a method to find the gradient of the tangent ft their stated gradient of AOP (or OA or OP) (could be embedded)
		$y - 3 = -0.5(x - 2)$		A1 oe eg $y = -\frac{1}{2}x + 4$
				Total 4 marks

Qn	Working	Answer	Mark	Notes
21	eg $(7.5+2.5) - 6 = 4$ large squares represents 8 trees or $5 \times 37.5 + 5 \times 12.5 - 10 \times 15 = 100$ small squares represents 8 trees $200 - 250 = 10$ $250 - 300 = 8$ $300 - 400 = 12$ $400 - 450 = 15$ $450 - 600 = 15$ (or $450 - 500 = 5$ or $500 - 600 = 10$) $600 - 800 = 4$		3	M1 oe eg 1 large square represents 2 trees or 12.5 small squares represents 1 tree or a frequency density axis scale where one large square vertically is FD of 0.04 with no contradictions or a correct frequency for any bar (could be seen on the diagram)
	$5 \times 2 + 2 \times 2$ or $\frac{10 \times 12.5 + 20 \times 2.5}{100} \times 8$ oe or $100 \times 0.1 + 200 \times 0.02$			M1 for a correct method to find the total number of trees greater than 500 cm.
		14		A1
	Total 3 marks			

Qn	Working	Answer	Mark	Notes
22	(Length sf =) $\sqrt[3]{0.8}(=0.928\dots)$ or $\sqrt[3]{1.25}(=1.07\dots)$ or $\sqrt[3]{4}:\sqrt[3]{5}$ oe		4	M1 for a correct linear scale factor
	(Area sf =) $(\sqrt[3]{0.8})^2(=0.861\dots)$ or 86.1...(%) or $(\sqrt[3]{1.25})^2(=1.16\dots)$ or 116...(%) or $(\sqrt[3]{4})^2:(\sqrt[3]{5})^2$ oe			M1 for a correct area scale factor
	eg (k =) $(1 - "0.861\dots") \times 100$ or $(100 - "86.1\dots")$ or $100 - \frac{100}{"1.16"}$ or $100 - \frac{100}{"116"} \times 100$ or $100 - 100 \times \frac{(\sqrt[3]{4})^2}{(\sqrt[3]{5})^2}$			M1 for a method to find the percentage reduction
		13.8		A1 accept 13.7 – 13.9
				Total 4 marks

Qn		Max score	Mean %	Average score of candidates achieving grade:								
				ALL	9	8	7	6	5	4	3	U
1	Statistical measures	3	88	2.64	2.98	2.92	2.84	2.67	2.30	1.72	0.62	0.10
2	Standard form	4	91	3.63	3.91	3.80	3.69	3.57	3.47	3.11	2.30	0.00
3	Linear equations	3	81	2.43	2.98	2.94	2.73	2.29	1.59	0.82	0.20	0.02
4	Powers and roots	3	85	2.54	2.87	2.76	2.67	2.44	2.29	1.77	0.98	0.40
5	Applying number	3	81	2.44	2.92	2.74	2.59	2.30	2.00	1.36	0.76	0.25
6	Percentages	3	75	2.25	2.95	2.81	2.38	1.82	1.38	0.71	0.18	0.07
7	Trigonometry and Pythagoras' Theorem	6	71	4.28	5.82	5.56	4.71	3.44	1.97	0.72	0.22	0.10
8	Measures	3	73	2.19	2.89	2.67	2.35	1.90	1.35	0.68	0.18	0.03
9	Mensuration of 2D shapes	4	71	2.83	3.69	3.39	3.04	2.60	1.76	0.75	0.17	0.05
10	Trigonometry and Pythagoras' Theorem	5	69	3.44	4.88	4.51	3.78	2.47	1.30	0.41	0.10	0.03
11	Powers and roots	3	66	1.98	2.83	2.50	2.00	1.52	1.00	0.51	0.17	0.00
12	Percentages	4	63	2.53	3.51	2.91	2.43	2.02	1.71	1.24	0.65	0.23
13	Circle properties	3	60	1.80	2.86	2.38	1.74	1.04	0.56	0.25	0.15	0.03
14	Mensuration of 2D shapes	3	56	1.68	2.72	2.31	1.57	0.92	0.40	0.12	0.06	0.00
15	Statistical measures	3	54	1.61	2.54	1.88	1.44	1.05	0.88	0.55	0.25	0.10
16	Trigonometry and Pythagoras' Theorem	3	50	1.49	2.71	2.03	1.23	0.56	0.23	0.11	0.04	0.01
17	Use of symbols	4	49	1.95	3.19	2.21	1.63	1.32	1.07	0.68	0.38	0.00
18	Degree of accuracy	4	39	1.54	2.86	1.84	1.28	0.75	0.39	0.15	0.03	0.02
19	Mensuration of 2D shapes	5	42	2.11	4.37	2.82	1.36	0.53	0.15	0.05	0.01	0.06
20	Graphs	4	34	1.36	3.19	1.55	0.64	0.27	0.13	0.05	0.00	0.00
21	Graphical representation of data	3	23	0.69	1.66	0.64	0.34	0.22	0.08	0.07	0.01	0.00
22	Similarity	4	20	0.79	2.27	0.67	0.13	0.05	0.00	0.00	0.00	0.00
		80	60	48.20	70.60	57.84	46.57	35.75	26.01	15.83	7.46	1.50

Suggested grade boundaries

Grade	9	8	7	6	5	4	3
Mark	64	52	41	31	21	12	5