

Q1. (2017)

13	360 – (21 + 36 + 160 + 90) or 360 – 307 or 270 – (21 + 36 + 160) or 270 – 217	M1	oe
	53	A1	
	Additional Guidance		
	53 (may be on diagram) with no incorrect working or no working		M1A1
	53 on diagram with different answer on answer line		A0
	360 – (21 + 36 + 160) or 360 – 217 or 143 (ignoring 90°)		M0A0
	180 – (90 + 36) = 54		M0A0

Q2. (2018)

16(a)	180 ÷ 3 or 60	M1	oe eg 60 + 60 + 60 = 180
	(180 – 28) ÷ 2 or 152 ÷ 2 or 76	M1	oe eg 76 + 76 + 28 = 180
	180 – their 60 – their 76	M1dep	oe eg 44 + 60 + 76 = 180 dep on M1M1
	44	A1	
	Additional Guidance		
	60 or 76 seen in appropriate place on diagram or in working scores one mark for each		
	Answer 44 not from wrong working		M3A1
	180 – 28 ÷ 2 unless recovered		2nd M0

Q3. (2018)

16(b)	No and gives correct reason	B1	eg it should be 180 – (360 ÷ 8) it should be 1080 ÷ 8 this gives the exterior (not the interior) angle it should be obtuse not acute accept any unambiguous indication of No
	Additional Guidance		
	A correct reason may be 1. showing a correct method 2. correction of her method (error and replacement shown) 3. correction of her answer (answer and replacement shown)		
	No, It should be 135 not 45	(3)	B1
	No, It should be 1080 not 360	(2)	B1
	No, because the interior angles should be 1080 not 360	(2)	B1
	No, she needs to subtract her answer from 180	(1)	B1
	No, ((8 – 2) × 180) ÷ 8	(1)	B1
	No, It should be ((n – 2) × 180) ÷ 8 (doesn't use n = 8)		B0
	Any numbers quoted must be correct but ignore other non-contradictory statements eg No, It should be 720. She's worked out the exterior angle		B0
	No, There's not 360 in an octagon or No, Angles in an octagon do not add up to 360		B0
	No, Interior angles add up to more than 360		B0
	No, It should be 135		B0
	No, It should be 1080		B0
	No, 45 is the outside angle		B0

Q4. (2019)

8(a)	Alternative method 1		
	360 – 108 or 252	M1	oe eg 360 ÷ 5 + 180 may be on diagram
	their 252 × 5	M1dep	oe eg 5 × (180 – 108) + 5 × 180 or 5 × 72 + 5 × 180 or 5 × (72 + 180)
	1260	A1	SC1 answer 540
	Alternative method 2		
	5 × 360 or 1800 and 5 × 108 or 540	M1	
	5 × 360 – 5 × 108 or 1800 – 540	M1dep	oe
	1260	A1	SC1 answer 540
	Additional Guidance		
	Allow 252 seen on the diagram or in the working even if not used		M1

Q5. (2020)

Q	Answer	Mark	Comments
2	250°	B1	

Q6. (2021)

Q	Answer	Mark	Comments
16	x + 53 + 48 = 180 or 53 + 48 or 101 or 180 – 53 or 127 or any correct angle marked as 53 or 127 on the diagram	M1	oe equation in x
	180 – (53 + 48) or 360 – 53 – 53 – (180 – 53) – 48	M1dep	oe eg 180 – 101 or 127 – 48
	79	A1	
	Additional Guidance		
	M1 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts		
	Correct angle on diagram may be credited even if alongside other incorrectly marked angles or incorrect or no working in working lines		
	Correct method in the working lines may be credited even with incorrect angles on the diagram		
	Method for 79 followed by further work to their 79		M1M1A0

Q7. (2021)

(A)

Q	Answer	Mark	Comments
24(a)	Alternative method 1		
	15^2 or 225 and 7^2 or 49 or 274	M1	
	$\sqrt{7^2 + 15^2}$ or $\sqrt{49 + 225}$	M1dep	
	16.55(...) or 16.6 or $\sqrt{274}$	A1	accept 17 with M2 awarded
	Alternative method 2		
	$\tan^{-1} \frac{7}{15}$ or 25.0...	M1	
	$\frac{15}{\cos(\text{their } 25\dots)}$ or $\frac{7}{\sin(\text{their } 25\dots)}$	M1dep	
	16.55(...) or 16.6	A1	accept 17 with M2 awarded
	Alternative method 3		
	$\tan^{-1} \frac{15}{7}$ or 64.98... or 65	M1	
	$\frac{15}{\sin(\text{their } 64.98\dots)}$ or $\frac{7}{\cos(\text{their } 64.98\dots)}$	M1dep	
	16.55(...) or 16.6	A1	accept 17 with M2 awarded

24(a) cont	Additional Guidance	
	Allow rounding or truncation after correct answer seen eg1 16.55, Answer 16	M2A1
	eg2 $\sqrt{274}$, Answer 16.5	M2A1
	Misconception of square root eg $\sqrt{274} = 137$	M2A0
	$15^2 - 7^2$	M1M0A0
	$\sqrt{176}$ without seeing 15^2 or 225 and 7^2 or 49	M0M0A0

(B)

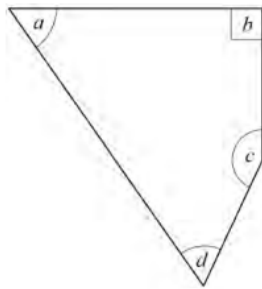
Q	Answer	Mark	Comments
24(b)	It is more than 90°	B1	

Q8. (2022)

Q	Answer	Mark	Comments
7	Angle $[88^\circ, 92^\circ]$ at B	M1	length ≥ 1 cm for vertical may be implied by a point marked
	Line parallel to AB	M1	mark intention length ≥ 1 cm may be implied by two points marked
	Quadrilateral ABCD with angle $ABC = [88^\circ, 92^\circ]$ and CD parallel to BA and $BC = [3.8, 4.2]$ cm and $DC = [5.8, 6.2]$ cm	A1	sides must be joined and look straight ignore extra lines and lines extended SC2 reflection of correct shape with right angle at A (ignore labels)
	Additional Guidance		
	Lengths of lines (as long as ≥ 1 cm) irrelevant for up to M2		
	Condone absence of labels C and D		
	Correct quadrilateral with C and D labels swapped		M2A0

Q9. (2024)

3 Here is a quadrilateral.



(A)

Q	Answer	Mark	Comments
3(a)	c	B1	

(B)

Q	Answer	Mark	Comments
3(b)	a or d	B1	accept a and d

(C)

Q	Answer	Mark	Comments
3(c)	0	B1	oe
	Additional Guidance		
	Accept none, zero, nought etc		