

Q1. (2017)

24	Alternative method 1		
	360 – 110 or 250 or 360 – 110 – 110 or 140	M1	May be seen on diagram oe
	3360 ÷ their 140 or 24 or 2640 (men) or 6000 (women)	M1dep	their 140 must be from 360 – 110 – 110 oe
	8640	A1	SC2 4838 or 4839
	Alternative method 2		
	100 – $\frac{110}{360} \times 100$ or 100 – 30.5(...) or 100 – 30.6 or 69.4(...) or 69.5(%) or 100 – $\frac{110}{360} \times 100 - \frac{110}{360} \times 100$ or 100 – 30.5(...) – 30.5(...) or 100 – 30.6 – 30.6 or 38.8(...) or 38.9(%)	M1	May be seen on diagram oe
	3360 ÷ (their 69.4 – their 30.5) or 3360 ÷ their 38.8(...) or 86.4	M1dep	their 69.4 must be from $100 - \frac{110}{360} \times 100$ their 30.5 must be from $\frac{110}{360} \times 100$
	8640	A1	SC2 4838 or 4839
	Alternative method 3		
	$250 - \frac{110}{360}x = 3360$ or $m = \frac{110}{360} \times (m + 3360 + m)$ or $w = \frac{250}{360} \times (w + w - 3360)$	M1	Sets up a correct equation to work out total (x), men (m) or women (w) oe
24 cont	$x = 3360 + \left(\frac{250 - 110}{360}\right)$ or $m = 336000 + 140$ or 2640 or $w = 840000 + 140$ or 6000	M1dep	oe
Additional Guidance			
Condone 8639.9... → answer 8640			M2 A1
2640 or 6000			M2
4838 and 4839 come from 3360 women			SC2

Q2. (2022)

Q	Answer	Mark	Comments
16	90 seen or [88°, 92°] drawn on pie chart	M1	allow missing or incorrect label
	$\frac{20}{60} \times 360$ or 120 seen or [118°, 122°] drawn on pie chart	M1	oe eg $360 \div 3$ allow missing or incorrect label
	Fully correct pie chart with unambiguous labels and all angles $\pm 2^\circ$	A1	
	Additional Guidance		
	All three labels (or a key) needed for the A1 but accept eg No, Yes, Rest or N, Y, M or N, Y, R eg for No do not accept 15 (people) or $\frac{1}{4}$ or 90 as the label		
Not using the given radius will score a maximum of M2			