

Q1. (2018)

28	$4^2 + y^2 = 80$ or $y = \sqrt{64}$	M1	oe May be implied from 8 on diagram
	$y = -8$	A1	Accept (4, -8)
	$\frac{\text{their } -8}{4}$ or -2	M1	oe gradient of radius OP
	$-1 + \text{their } -2$ or $\frac{1}{2}$ or $-1 + \text{their gradient}$	M1	gradient of tangent at P
	$y = \frac{1}{2}x - 10$ or $y + 8 = \frac{1}{2}(x - 4)$	A1	oe Ignore further working
	Additional Guidance		
	$y + 8 = \frac{1}{2}(x - 4)$ followed by error expanding and/or collecting terms	M1A1M1M1A1	
	$y = \frac{1}{2}x - 10$ in working and $\frac{1}{2}x - 10$ only on answer	M1A1M1M1A1	
	$\frac{1}{2}x - 10$	M1A1M1M1A0	
	$(y = \sqrt{64})$ $y = 8$ Gradient $OP = 2$ Perpendicular gradient = $-\frac{1}{2}$	M1 A0 M1 M1 A0	

Q2. (2020)

Q	Answer	Mark	Comments
25	6	B1	