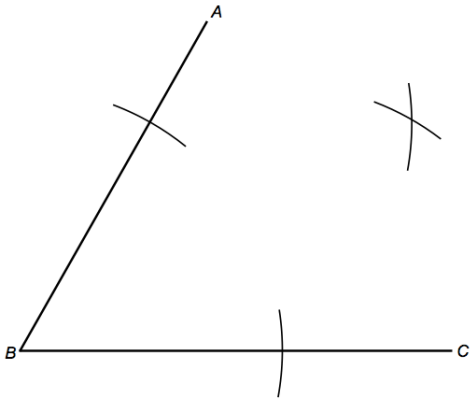
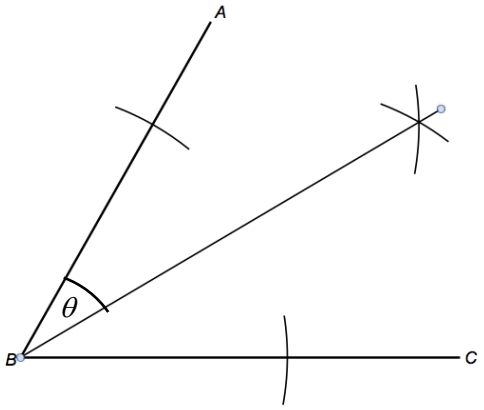
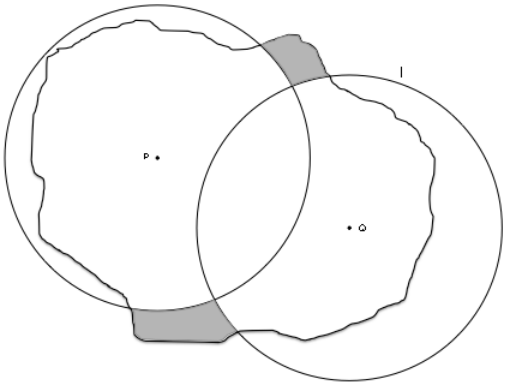
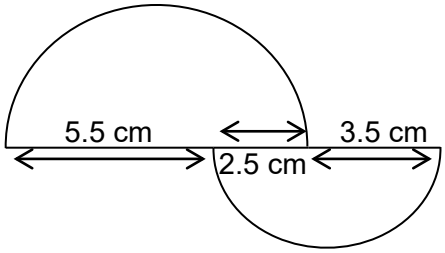
Topic Test 1 Mark Scheme

Constructions and Loci - Higher

Q	Answer	Mark	Comments
1	Arcs on each ray of equal length centred on *B*, and intersecting arcs of equal length centred on these arcs.  	M1	
	Angle bisector within tolerance, θ = [29°,31°]  	A1	

Q	Answer	Mark	Comments
2(a)	A	B1	
2(b)	(FORWARD 6 cm TURN RIGHT) FORWARD 4 cm TURN RIGHT FORWARD 6 cm TURN RIGHT FORWARD 4 cm	B2	B1 if all turns are RIGHT B1 if distances alternate 4, 6, 4
3		B2	B1 for a circle drawn with radius 6 cm from P or Q. B1 for two circles of equal radii drawn from P and Q and areas of no mobile phone coverage marked.
4		B2	B1 both semicircles drawn accurately

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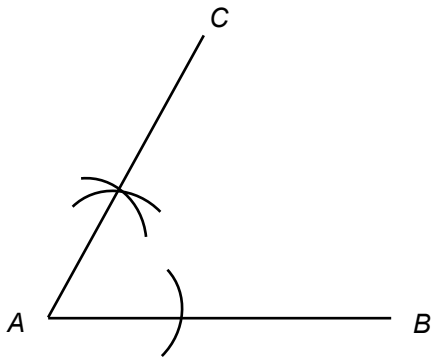
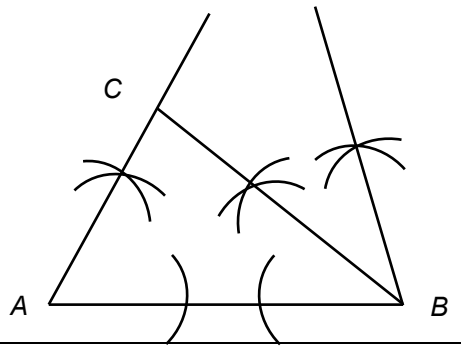
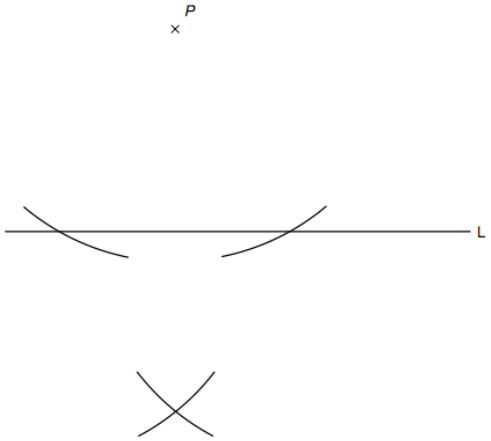
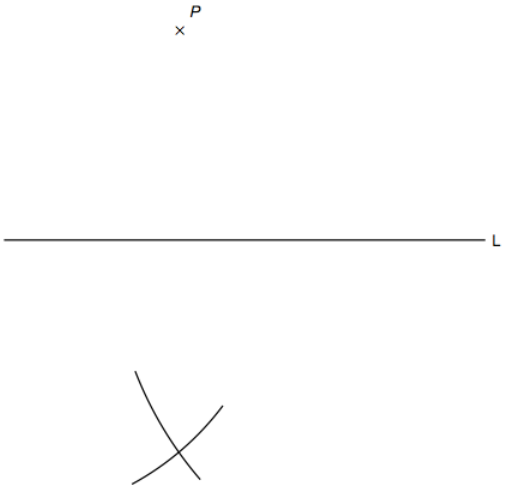
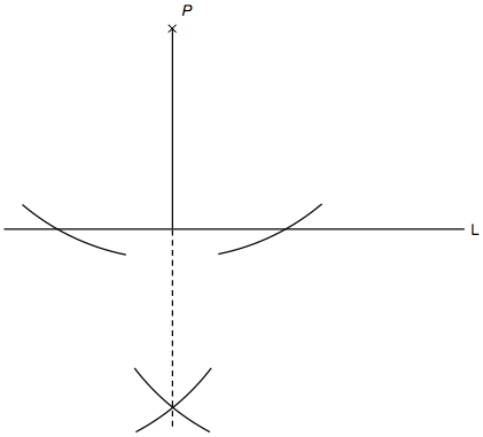
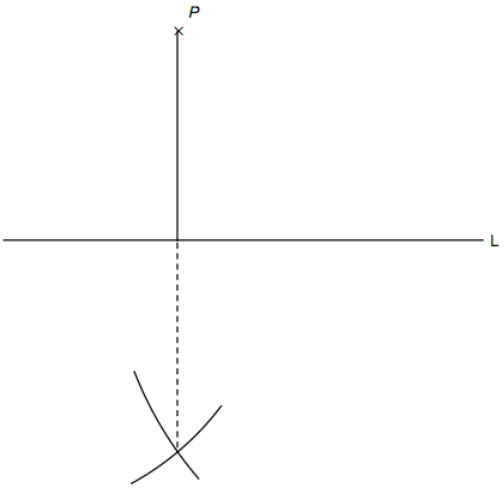
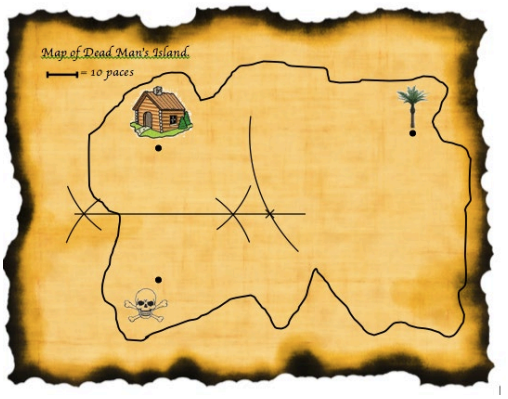
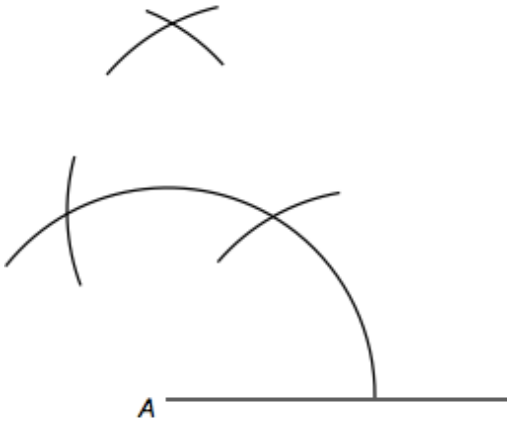
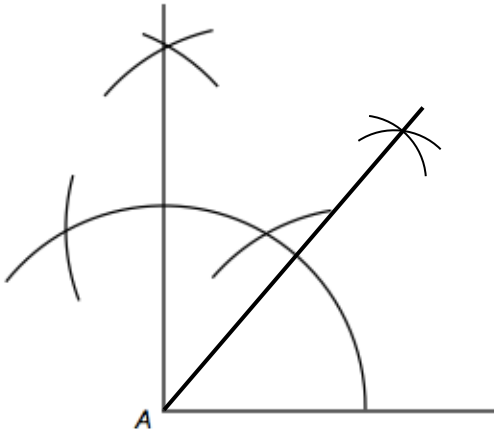
5		B1	M1 Two arcs from *A* one of which crosses *AB*. Arc of equal length centred on the intersection with *AB* and intersecting with the other arc.
		B1	Construct angle bisector at *B*, crossing *AC* (extended) and triangle completed.
6	$PN \leq PL$ **and** $PQ \geq PN$	B1	

Q	Answer	Mark	Comments
7	Arcs of equal length centred on *P* intersecting L and intersecting arcs of equal length centred on the intersection points 	M1	Arc from each end with radius to point *P*, drawn on other side of line L. 
	Perpendicular within tolerance [89°, 91°]. Allow perpendicular to extend beyond L 	A1	Perpendicular within tolerance [89°, 91°]. Allow perpendicular to extend beyond L 

Q	Answer	Mark	Comments
8		B1 M1	B1 arc of length 5cm drawn, centred on Palm Tree M1 2 pairs of intersecting arcs of equal length centred on Cabin and bone-yard
		A1	Perpendicular bisector marked and intersection with 5 cm arc marked.

Q	Answer	Mark	Comments
9		M1	Arc centred on *A* and 2 arcs centred on intersection with ray and intersection of first arc. Two intersecting arcs from these points. Extend line to the left of A and use the method for constructing a perpendicular at a point on a line.
		A1	Angle bisector of A constructed.