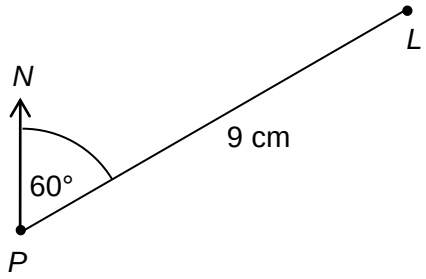
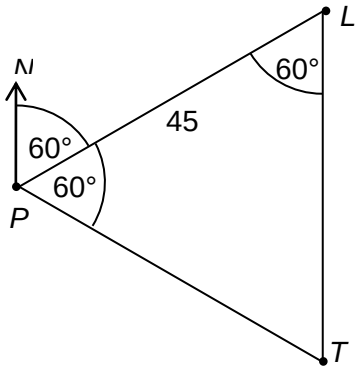
Topic Test 1 Mark Scheme

Scale diagrams and bearings - Higher

Q	Answer	Mark	Comments
1	124°	B1	
2	290°	B1	
3	2.54 cm represents 1.6 km seen or implied or 1.6 ÷ 2.54	M1	oe
	0.6299...	A1	
4(a)		B2	B1 Line *PL* = 9 cm drawn or Angle = 60° drawn in correct position Allow [8.9, 9.1] and [59°, 61°]
4(b)	240°	B1	

Q	Answer	Mark	Comments
4(c)	Shows or states that the angle between *PL* and due South is 60° (alternate angles)	M1	
	Shows or states that the angle *LST* is 120 – 60 or 60°	M1	
	PTL is an equilateral triangle so *PL* = *LT* = 45	A1	Must mention equilateral triangle and have full reasons or clear sketch
	A suitable sketch:  Must **not** be a scale drawing		

5	**Alternative method 1**		
	Using *X* due South of *C*, angle *BCX* = 21	M1	
	angle *ACB* = 55 – 21 or 34	M1dep	
	angle *CAB* = (180 – their 34) ÷ 2 or 73	M1dep	
	128	A1	
	Alternative method 2		
	Bearing of *A* from *C* = 235 and bearing of *B* from *C* = 201	M1	
	angle *ACB* = 235 – 201 or 34	M1dep	
	angle *CAB* = (180 – their 34) ÷ 2 or 73	M1dep	
	128	A1	

Q	Answer	Mark	Comments
6(a)	[9, 9.5]	B1	
	their [9, 9.5] × 150 000 ÷ 100 ÷ 1000 or [13.5, 14.25]	M1	
	their [13.5, 14.25] ÷ 6	M1	
	[2.25, 2.375]	A1ft	[2 hours 15 minutes, 2 hours 22.5 minutes]
6(b)	Estimate will be low as he is unlikely to walk in straight line or Estimate will be low as he will need to cross the bridge which will make the distance longer	B1	oe
	If he climbs slower then the estimate will be low or If he climbs faster then the estimate will be high	B1	oe