

Question	Answer	Mark	Mark scheme	Additional guidance
23	73	P1	<p>for process to work with cosine eg <math>(DB^2 =) 12^2 + 9^2 - 2 \times 12 \times 9 \times \cos 60 (= 117)</math></p>	
		P1	<p>for a correct order of operations to find DB, eg <math>\sqrt{225 - 216 \times \cos 60}</math> <b>or</b> <math>\sqrt{"117"} (= 10.8\dots)</math></p>	$\sqrt{117} = 3\sqrt{13}$ Can be implied by correct use in subsequent calculations
		P1	<p>for working with sine rule and <math>60^\circ</math> eg <math>\frac{\sin CBD}{9} = \frac{\sin 60}{[DB]}</math> <b>or</b> <math>\sin CBD = 0.720\dots</math> <b>or</b> <math>CBD = 46.10\dots</math></p>	$3^{\text{rd}}$ and $4^{\text{th}}$ P1 can be awarded in any order [DB] must be clearly identified but may not be correct, but cannot be 6 or 9 or 12
		P1	<p>for working with sine rule and <math>125^\circ</math> eg <math>\frac{\sin ABD}{6} = \frac{\sin 125}{[DB]}</math> <b>or</b> <math>\sin ABD = 0.454\dots</math> <b>or</b> <math>ABD = 27.02\dots</math></p>	CBD and ABD may be given as a variable, award marks unless contradicted
		A1	<p>for answer within the range 72.5 to 73.5</p>	