Q1. AB is a line segment.
A is the point (2, 5, 6).
The midpoint of the line AB has coordinates (–1, –4, 2).

Find the coordinates of point B.

(...................... , ... , ...)

(Total 2 marks)

M1.

Working	Answer	Mark	Additional Guidance
(2, 5, 6) to (−1, −4, 2) is (−3, −9, −4) (−1 −3, −4 − 9, 2 − 4) or $\dfrac{2+x}{2}$ = −1, $\dfrac{5+y}{2}$ = −4, $\dfrac{6+z}{2}$ = 2	(−4, −13, −2)	2	**M1** for a complete correct method for at least 1 coordinate (could be implied by 2 out of 3 coordinates correct) **A1** cao
			Total for Question: 2 marks

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Even though the coordinates of the end point rather than the midpoint was required, 36% of the candidates provided fully correct answers. Others that had used the correct method (eg applying 3, 9, 4), managed to get a method mark for getting 2 of the 3 coordinates correct.

Frequently answers were given with no working shown. Some candidates just doubled (−1, −4, −2) to find answer whilst others gave (−3, −9, −4) or (3, 9, 4) as their final answer.