

- The coordinates of points A and B are $(-3k - 1, k + 3)$ and $(k + 3, 3k + 5)$ respectively, where k is a constant ($k \neq -1$).

(i) Find and simplify the gradient of AB , showing that it is independent of k . [2]

[illegible]

(ii) Find and simplify the equation of the perpendicular bisector of AB . [5]

This image shows a full page of white paper with ten horizontal dashed lines, typical of primary school handwriting practice paper. The lines are evenly spaced and extend across the entire width of the page. There is no text or other markings on the paper.

