

28

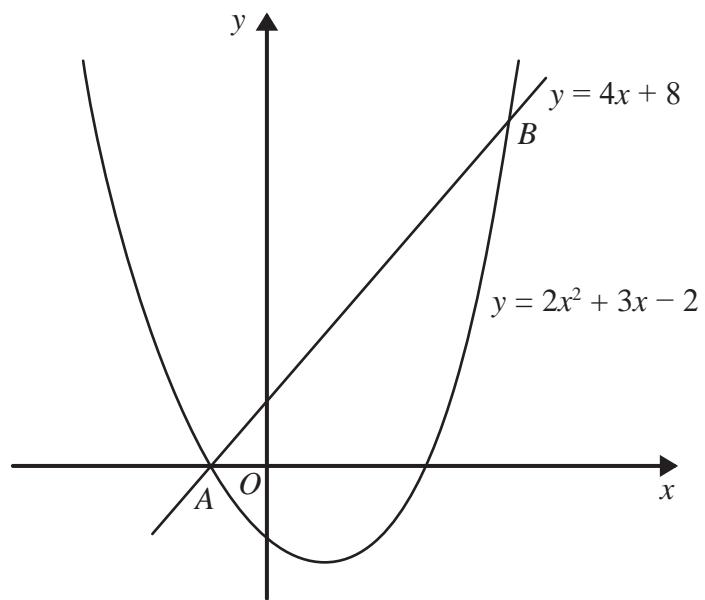


Diagram **NOT**
accurately drawn

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

The diagram shows a sketch of part of the curve with equation $y = 2x^2 + 3x - 2$ and part of the straight line with equation $y = 4x + 8$

The points of intersection of the line with the curve are A and B.

- (a) Find the length of AB, giving your answer in the form $k\sqrt{17}$, where k is a rational number to be determined.

Show your working clearly.



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Question 28 continued)

The point C has coordinates $(-5, 0)$

(b) Calculate the size, to the nearest degree, of $\angle CAB$.

(6)

(2)

(Total for Question 28 is 8 marks)**TOTAL FOR PAPER IS 100 MARKS**