6 The line $y = 3x + 4$ meets the curve $y = 2x^2 + 8x + 1$ at two points A and B.

Find the equation of the perpendicular bisector of AB, giving your answer in the form $ax + by + c = 0$, where a, b and c are integers. [9]

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7 Solve the equation $\sec^2 3x + \tan 3x - 3 = 0$ for $0° \leqslant x \leqslant 120°$. [6]

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