

10 Given that $\frac{12(2^{3x})^{x-2}6^{2x-1}}{9^x}$ can be written in the form 2^n

(a) show that $n = 3x^2 - 4x + 1$

(3)

(b) Hence solve the equation $\frac{12(2^{3x})^{x-2}6^{2x-1}}{9^x} = 32$

(3)

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Question 10 continued**DO NOT WRITE IN THIS AREA****DO NOT WRITE IN THIS AREA****DO NOT WRITE IN THIS AREA****(Total for Question 10 is 6 marks)**

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