

10 (a) Show that $\frac{9^{3y}}{243} = 3^{(6y-5)}$

(4)

(b) Solve the simultaneous equations

$$\frac{9^{3y}}{243} = 27^{(x-2)}$$

$$\log_{10} \sqrt{6xy} = \log_4 2$$

(9)

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Question 10 continued

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(Total for Question 10 is 13 marks)

