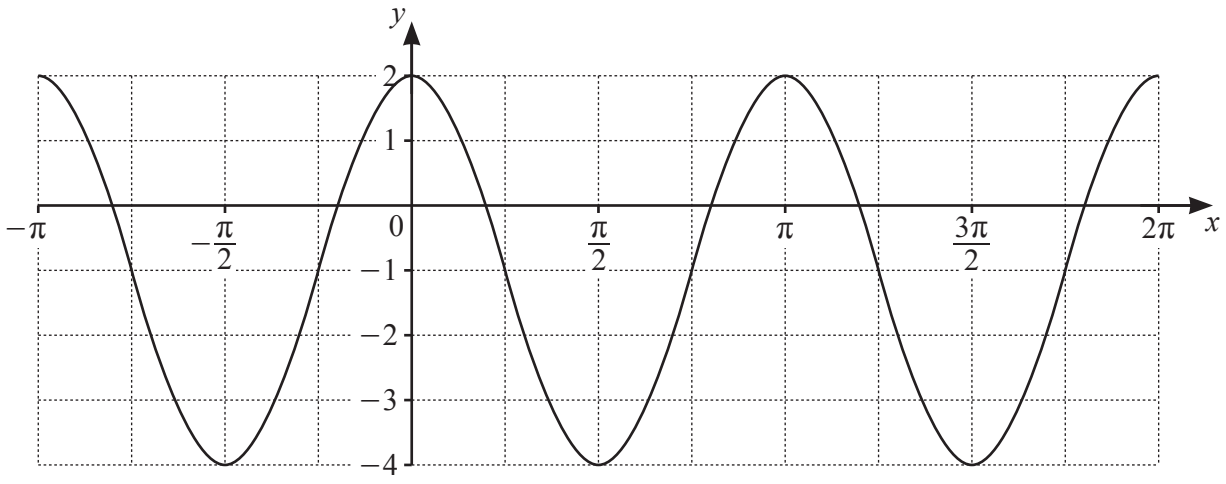
3



(a) The curve has equation $y = a\cos bx + c$ where a, b and c are integers. Find the values of a, b and c. [3]

(b) Another curve has equation $y = 2\sin 3x + 4$. Write down

(i) the amplitude, [1]

(ii) the period in radians. [1]

4 **(a)** Solve the equation $\log_6(2x-3) = \frac{1}{2}$. Give your answer in exact form. [2]

(b) Solve the equation $\ln 2u - \ln(u-4) = 1$. Give your answer in exact form. [3]

(c) Solve the equation $\frac{3^v}{27^{2v-5}} = 9$. [3]

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