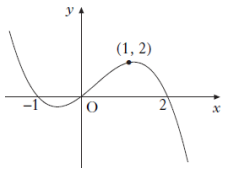
200 Exam Questions & Answers

121 The diagram shows the graph of a cubic. What is the equation of this cubic? 	
122 If $f(x) = (x-3)(x+5)$, for what values of x is the graph of $y = f(x)$ above the *x*-axis?	
123 Simplify $5log_8 2 + log_8 4 - log_8 16$	
124 Solve $4sin^2 x = 3$ for $0 \leq x \leq 360$.	
125 If $cosA = \frac{5}{13}$ and $sinB = \frac{4}{5}$, show that $\sin(A+B) = \frac{56}{65}$.	
126 Given that $f(x) = 4sin3x$, find $f'(0)$.	
127 A curve has equation $y = x - \frac{16}{\sqrt{x}}$, $x > 0$. Find the equation of the tangent at the point where $x = 4$.	
128 Find $\int (1-6x)^{-\frac{1}{2}}\, dx$ where $x < \frac{1}{6}$.	
129 $\frac{dy}{dx} = 6x^2 - 4x + 3$. If $y = 5$ when $x = 1$, find an equation for y.	
130 Express $8cosx° - 6sinx°$ in the form $kcos(x+a)°$ where $k > 0$ and $0 < a < 360$.	