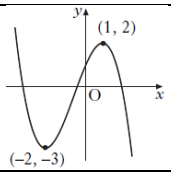
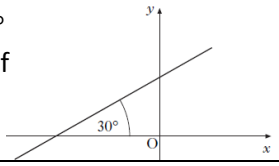
51 Functions f and g are defined on a suitable domain by $f(x) = cosx$ and $g(x) = x + \frac{\pi}{6}$. What is the value of $f\left(g\left(\frac{\pi}{6}\right)\right)$?	
52 The diagram shows the graph of $y = f(x)$. Sketch $y = f(x + 2) - 1$ 	
53 Given that $\boldsymbol{u} = \begin{pmatrix} 2 \\ 0 \\ 1 \end{pmatrix}$ and $\boldsymbol{v} = \begin{pmatrix} -1 \\ 2 \\ 4 \end{pmatrix}$, find $3\boldsymbol{u} - 2\boldsymbol{v}$ in component form.	
54 The vectors $x\boldsymbol{i} + 5\boldsymbol{j} + 7\boldsymbol{k}$ and $-3\boldsymbol{i} + 2\boldsymbol{j} - \boldsymbol{k}$ are perpendicular. What is the value of x?	
55 Prove that $2cos^2A + 3sin^2A - 2 = sin^2A$.	
56 A line makes an angle of 30° with the positive direction of the x-axis as shown. What is the gradient of the line? 	
57 Find the equation of the perpendicular bisector of the line joining $P(3, -3)$ to $Q(-1, 9)$.	
58 Write down the centre and calculate the radius of the circle with equation $x^2 + y^2 + 8x + 4y - 38 = 0$	
59 A sequence is defined by the recurrence relation $u_{n+1} = 2u_n + 3$ and $u_0 = 1$. What is the value of u_3?	
60 Calculate the shaded area enclosed by the line $y = 2x - 3$ and the curve $y = x^2 - 5x - 3$.