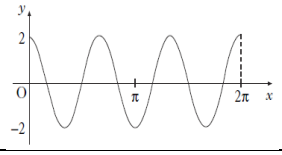
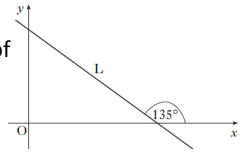
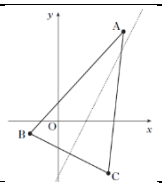
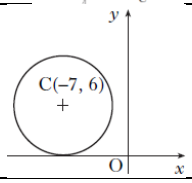
11 A function f is given by $f(x) = \sqrt{9 - x^2}$. What is a suitable domain of f?	
12 The diagram shows the graph with equation of the form $y = acosbx$ for $0 \leq x \leq 2\pi$. What is the equation of this graph? 	
13 $E(-2,-1,4), P(1,5,7) and\ F(7,17,13)$ are three collinear points. P lies between E and F. What is the ratio in which P divides EF?	
14 Vectors $\boldsymbol{p}$ and $\boldsymbol{q}$ are such that $\lvert\boldsymbol{p}\rvert = 3$, $\lvert\boldsymbol{q}\rvert = 4$ and $\boldsymbol{p}.\boldsymbol{q} = 10$. Find the value of $\boldsymbol{q}.(\boldsymbol{p} + \boldsymbol{q})$.	
15 Write down the exact values of $sin60°$ and $tan\frac{\pi}{6}$.	
16 The diagram shows a line L; the angle between L and the positive direction of the x-axis is $135°$, as shown. What is the gradient of the line L? 	
17 The vertices of triangle ABC are $A(7,9), B(-3,-1)$ and $C(5,-5)$ as shown in the diagram. Find the equation of the median from C. 	
18 The x-axis is a tangent to a circle with centre $(-7,6)$ as shown in the diagram. What is the equation of the circle? 	
19 A sequence is defined by the recurrence relation $u_{n+1} = 0.3u_n + 6$ with $u_{10} = 10$ What is the value of u_{12}?	
20 The diagram shows graphs with equations $y = 14 - x^2$ and $y = 2x^2 + 2$. Calculate the shaded area.