

## A - Level Further Maths 15 Minute Boost 6

$\sum_{r=1}^n r^2 =$	
What is the complex conjugate of $z = a + bi$	
For a curve with polar equation $r = f(\theta)$ the area of the region enclosed by the curve between $\theta = \theta_1$ and $\theta = \theta_2$ is	
If $z_1 = r_1 (\cos(\theta_1) + i \sin(\theta_1))$ and $z_2 = r_2 (\cos(\theta_2) + i \sin(\theta_2))$ then	$ z_1 z_2  =$  $\left  \frac{z_1}{z_2} \right  =$
What is the general solution of differential equation?	
<b>1</b> Find the general solution of the differential equation $\frac{dy}{dx} + \frac{y}{x} = \cos(x)$	



**2** Express  $\cos^4(\theta)$  in terms of  $\cos(4\theta)$  and  $\cos(2\theta)$ .

