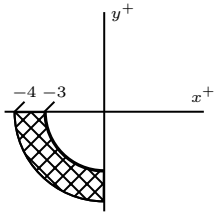
Exercise 1. Consider the figure which describes a region in the plane. The marked points are $x=-4$ and



$x=-3$. Describe the region in polar coordinates.

Exercise 2. Consider the complex number $z=e^{2\pi i/3}$. Show that the argument of $\bar{z}$ coincides with the argument z^2.

Exercise 3. Consider the complex number $w=2i$. What is the real part of $\frac{w}{1+w^2}$?

Exercise 4. Solve the equation $z+3\bar{z}=8-5i$ where z is a complex number.