1. Take the complex numbers $c_{1}=-\frac{3}{2}+2 i$ and $c_{2}=2-i$. Place them carefully into the complex plane below. Compute the product $c_{1} c_{2}$ and place it into the plane as well.

2. Consider the differential equation $y^{\prime \prime}+2 y^{\prime}-3$. Determine the roots of its auxiliary polynomial. Find a solution $y=f(x)$ of the differential equation that satisfies the initial conditions $f(0)=1$ and $f^{\prime}(0)=2$.
