Math 1AA3/1ZB3: Week 9 Tutorial Problems

March 8, 2019

1. Solve the initial value problem under the condition $y(1) = \frac{1}{2}$:

$$x\frac{dy}{dx} + 2y = x^2 - x + 1.$$

2. Sketch the parametric curve defined by: $x = -\sqrt{2 - t^2}$, $y = \sin\left(\frac{t\pi}{\sqrt{2}}\right)$.