

18.022 Recitation Quiz
10 December 2014

1. Show that $f(x) = 2x + \sin(x)$ has an inverse $f^{-1} : \mathbb{R} \rightarrow \mathbb{R}$.

2. There is no elementary way to solve the equation $2x + \sin(x) = 1$; in practice one would have to use numerical methods to approximate the solution. How do you reconcile this fact with the idea from the previous question, which might be summarized by the statement “you can solve for x in the equation $y = 2x + \sin(x)$ ”?