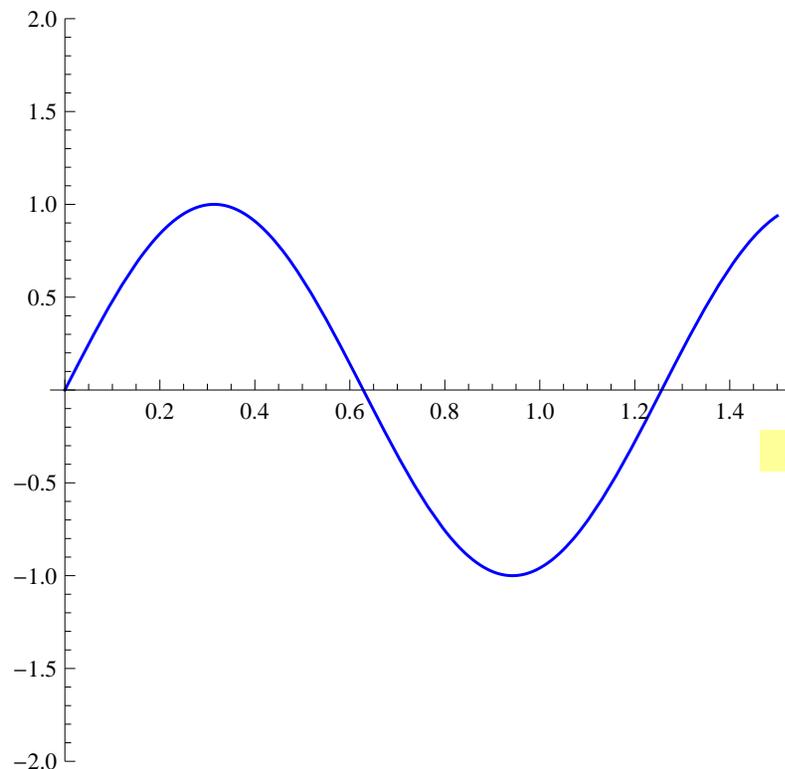


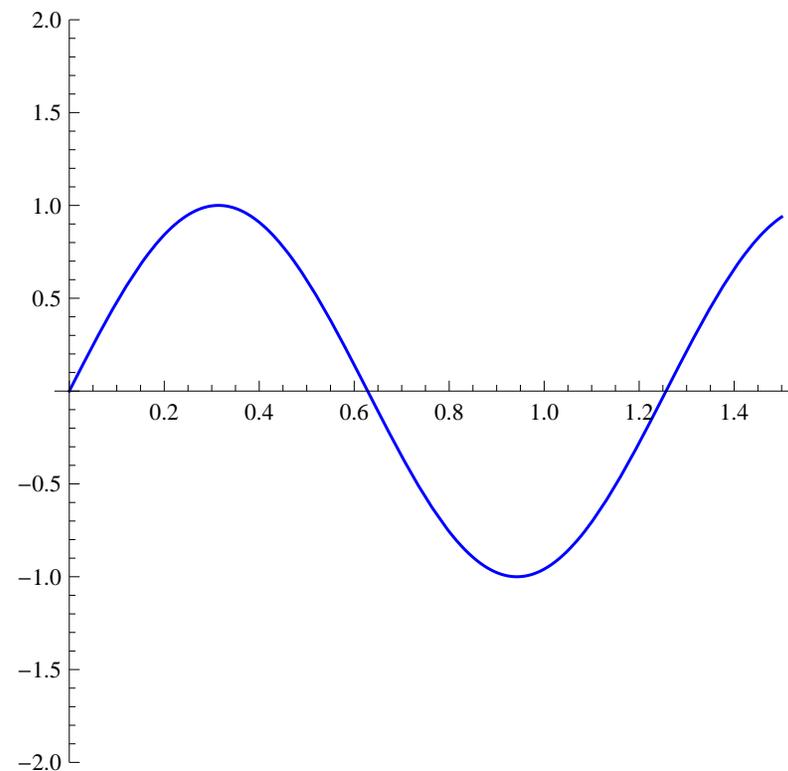
## Lecture 14: Worksheet

### Newton Method

- 1 In the following graph, trace two Newton steps, starting at  $x = 1.0$ .



- 2 Now do it again. But let your starting point  $x_0$  be around 0.4.



- 3 Compute the square root of 5 as far as you can! Without computer. We do that by applying the Newton step to  $f(x) = x^2 - 5$  starting with  $x = 0$ .