

Math 103, Fall 2014  
Week 10

After Class Homework  
Due Monday, November 10

1. Show that the polynomial  $x^5 + 3x - 6$  has exactly one root.
2. Show that the polynomial  $x^6 + 3x^2 - 6$  has exactly two roots.
3. A person travels 50 miles in 2 hours. Show that they traveled exactly 25 mph at least once during the trip.
4. Sketch the graph of  $f(x) = \frac{x^2+4}{x-1}$  without using a graphing calculator. (Use a graphing calculator or a computer program to check your answer.)