# Math 10A with Professor Stankova 

Worksheet, Discussion \#13; Monday, 9/25/2017
GSI name: Roy Zhao

## Newton's Method

## Examples

1. Find the roots of $f(x)=x^{3}-x+1$.

## Problems

2. Use Newton's method to estimate $\sqrt[4]{16.32}$.
3. Find the critical points of $g(x)=\sin (x)-x^{2}$
4. Find the critical points of $e^{x}+x^{2}$.
5. Find when $\cos x=x$.
6. Use Newton's method to estimate $\sqrt[3]{28}$.
7. Use Newton's method with two steps to estimate $\sqrt{5}$.
8. Use Newton's method to estimate $2^{0.1}$.
