

M 408C - Differential and Integral Calculus

Week 6 - 3.3-3.5

Quest HW 06 - Due Monday at 11:30p.

Gradescope HW 06 - Due Wednesday at 11:30p on Gradescope

§3.3, #37, 38

§3.4, #69, 70, 73, 83

§3.5, #46, 63

Additional Questions:

#1) Let $f(x) = x|x|$. Find the equation of the line tangent to $f(x)$ at $x = -2$.

#2) Find the equations of every line tangent to $y = x^2 - 2x$ which passes through the point $(2, -4)$

Additional Thing:

1). Let's stick with trees. Head over to the north side of the student union and stand in the space between the Hogg Memorial Auditorium, the Union Building, and the Barbara Jordan Statue. Look for the plaque describing the three Battle Oaks.

The oak trees that surround the Barbara Jordan statue are a historic campus landmark. The three live oaks were present on the original Forty Acres when the university first opened in 1883. The oaks are believed to have existed prior to the Civil War. Legend says that when word was received that Northern troops had reached Galveston during the Civil War, most of the oak trees on this hill were destroyed so that a fortress could be erected to protect the Capitol; **only the three oaks on campus today were left standing.**

Later, in the mid-1920's, the University discussed the possibility of building a new biology building on campus. The spot they selected was exactly where the three remaining civil war era trees stood. Once again, the three live oak trees were threatened.

When students and faculty got wind of the plans, they approached Dr. William Battle, the head of the Building Committee, and started a public campaign to save the oaks. They asked students, faculty, alumni and citizens to join the fight.

The oaks were saved from destruction and became known as the Battle Oaks to honor his fight to

preserve them.

Take a selfie in front of the Battle Oaks plaque. Your face must be in the picture to earn credit. Then enjoy a moment next to these trees that are older than UT!