CSCI 2150L Introduction to scientific computing

Homework Assignment 2

100 Marks

1. Plot a circle with the equation . Find the equation of a tangent to this circle at point (-2,5) and plot the tangent.
2. Plot a secant line to this circle passing from points (-2,5) and (1,2)
3. Rotate your circle tangent and the secant with an angle of 50°
4. There should be 2 subplots in all.
   1. First plot containing the original circle, tangent and secant.
   2. Second plot containing the rotated circle, tangent and secant.
5. Do NOT plot the secant with the plot function syntax plot(x1,y1,x2,y2) where you can directly plot the line. You should plot the secant by deriving its equation.

THINGS TO SUBMIT---

1. You have to submit a file named **PlotCircle.m** on elc in the dropbox provided for submission.
2. MATLAB files are by default saved with .m extensions.
3. **This assignment is due on Sept 28th 11:59 pm.**
4. **Your assignment should be strictly your own work.**