

6. (15 points)

a) (6 pts) Find the equation of the tangent line of $f(x) = \tan(x)$ at the point $x = \pi/4$.

b) (2 pts) Use part a) to estimate $\tan(3/4)$.

c) (4 pts) Circle **True** or **False**: The actual value of $\tan(3/4)$ is greater than your estimation from the previous part. (Briefly comment on the shape of the graph to justify your answer.)

d) (3 pts) Use part a) to estimate $\tan^{-1}(0.8)$