## Remember to show all of your work.

Problem 1. Find the derivative of each of the following functions (no need to simplify your answer)

- $f(x)=\frac{x^{4}+3 x^{2}-x+16}{3 e^{x}}$
- $f(x)=\cos (x) \cot (x)$

Problem 2. Find the equation of the tangent line of the function $f(x)=2 \sqrt{x}$ at $x=9$

