1. For the graph of $f(x) = x^4 - 12x^3 + 36x^2 + 4x - 12$, find the equation of the line that is tangent to the graph of $f(x)$ at two points.

   (Note that this is not the same thing as a tangent line that intersects the graph a second time – the second intersection must also be a point of tangency. There is only one such line for this example. You may use a graphing device/computer algebra system to assist you, but your final answer should include all the algebra performed by hand.)