Appendix K.2: Additional Problems

1. Find the equations of the tangents to the curve that pass through the point $(17, 22)$.

   $x = 4t^2 + 1$
   $y = 3t^3 - 2$

2. Use the parametric function to answer these questions.

   $x(t) = t^2 - 3t - 4$
   $y(t) = t^3 - 4t^2 + 12t$

   (a) Find the point(s) where the tangent lines are horizontal.

   (b) Find the point(s) where the tangent lines are vertical.

   (c) find $\dfrac{dy}{dx}\Big|_{(-6,16)} =$