1. This problem involves the parametric curve $\quad x = t^2 - \dfrac{1}{t}, \quad y = t^3 + t.$

   (a)   Find $\dfrac{dy}{dx}$.

   (b)   Find the slope of the tangent to the curve at the point where $t = 2$.

1. This problem involves the parametric curve $x = t^2 - 1, \quad y = t^2 + \sqrt{t}.$

(a) Find $\dfrac{dy}{dx}$.

(b) Find the slope of the tangent to the curve at the point where $t = 4$.