10/10/19 Section: $\qquad$

For full credit you must present a clearly organized solution, showing all supporting calculations.

1. Compute $\frac{\mathrm{d}}{\mathrm{d} x}\left(\sin \left(2 \cos ^{-1} \sqrt{x}\right)\right)$. You do not need to simplify.
2. Find the equation of the line tangent to the curve $x^{3}+8 x y^{2}-y^{5}=1$ at $(1,2)$. You may leave the equation in point-slope form if you wish.
