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**Question1:** If  $r = \cos(f(t))$ ,  $f(0) = \frac{\pi}{3}$ , and  $f'(0) = 1$ . Find the tangent equation to the curve of  $r$  when  $t = 0$

**Question2:** If  $2\sqrt{y} = x - y$ , find  $y''$  at the point (8,4)

**Question3.** Find the derivative of  $y = \log_2 \left( \frac{x^2 e^2}{2\sqrt{x+1}} \right)$ .