King Fahd University of Petroleum and Minerals

MATH 201 Section 19 QUIZ #1 Term 151 *Dr. A. Khalfallah*

Name:	ID:

Q1. Convert the curve $x = \cosh t$, $y = -\sinh t$, $-\infty < t < \infty$ into Cartesian equations. Sketch the curve with the direction of the motion.

Q2 Find the equation of the tangent line at $t = 0$ of the parametric curve $t = \ln(x - t)$ and $y = te^t$. Also find $\frac{d^2y}{dx^2}$ at $t = 0$.

Q3 Replace the polar equation $r = 2\cos\theta - \sin\theta$ with an equivalent Cartesian equation. Then identify the curve.