

# King Fahd University of Petroleum and Minerals

MATH 201 QUIZ #1 Term 171

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Name:

Section:

ID:

**Q1.** Convert the curve  $x = \cos^2 t$ ,  $y = 2 + \sin t$ ,  $-\frac{\pi}{2} \leq t \leq \pi$  into Cartesian equations.

Sketch the curve with the direction of the motion.

**Q2** Find equations of the tangents to the curve  $x = 3t^2 + 1$ ,  $y = 2t^3 + 1$  that pass through the point (4,3).

**Q3** Find the area enclosed by the curve  $x = 1 + e^t$ ,  $y = t - t^2$  and the **x-axis**.