$QUIZ\sharp 1$ Math 202, sec 07

Net Time Allowed: 20 minutes

Name:	$\mathbf{ID}~\sharp:$	section
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Exercise1:

Solve the initial value problem: $\frac{dx}{dt} = 4(x^2 + 1), \ x(\frac{\pi}{4}) = 1.$

solution:

Exercise2:

Determine whether Theorem 1.1 guarantees that the differential equation $y' = \sqrt{y^2 - 9}$ possesses a unique solution through the point (2, -3). Justify your answer.

solution: