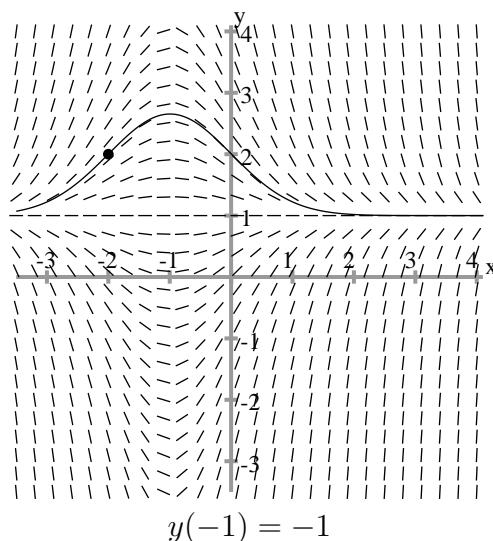
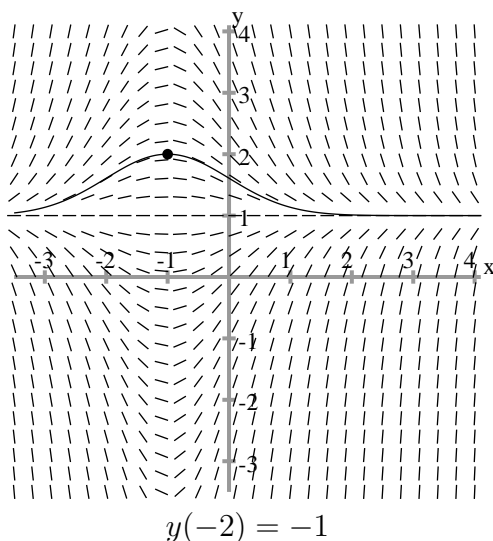
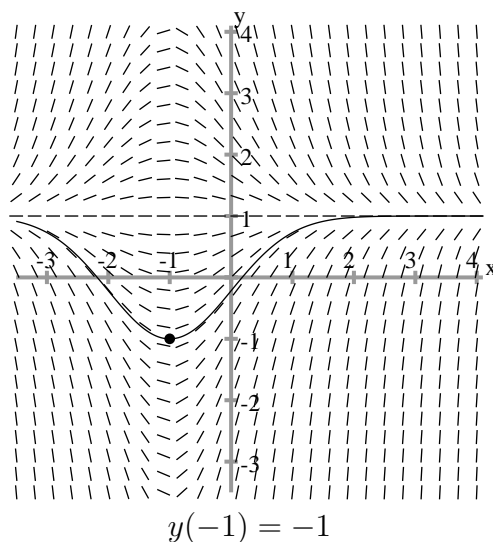
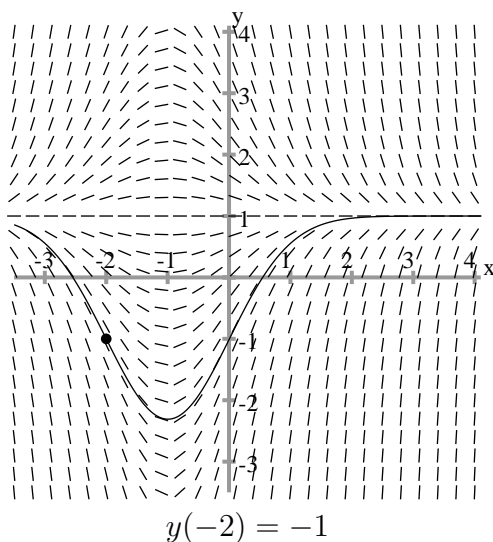


If you got anything wrong on the quiz, there is something fundamental about this new topic that is confusing you. You have an opportunity to make a huge difference for yourself in this class by clearing up the confusion right now. Get your questions answered. That's why I give quizzes!

1. Your sketch should have looked like one of these, depending on your initial condition.



2. Determine whether  $y(x) = e^{5x}$  is a solution to the ODE  $y'' - 6y' + 5y = 0$ .

$y' = 5e^{5x}$  and  $y'' = 25e^{5x}$ , so we ask whether  $25e^{5x} - 6 \cdot 5e^{5x} + 5 \cdot e^{5x} \stackrel{?}{=} 0$ . The left simplifies to 0, so the answer is **yes**.

I took off 1 point if you didn't answer the yes-no question, even if your calculations were correct.

(Your Problem 2 might have been slightly different.)