

## Quiz #1 Solutions

By: A Butterfly My Little Pony



*Hi everyone! I'm not really sure what my name is, but I'm a My Little Pony. I came out from wherever it is that I live to root for the Colts in the upcoming Super Bowl game! I brought my telescope, as you can see. I use this when I sit up on "tightwad hill" with the drunks during Cal football games. I'm also not really sure how I got these wings... I mean, I'm a pony! With butterfly wings? When I was in elementary school some of the other ponies made fun of me calling me a freak of nature and such. But the joke is on them! They can't fly! We already went over these solutions in class, but I'll still post these answers for you in case you'd like the correct answers at your disposal. ROCK ON!*

1.  $y = 3e^{\sin x} - 1$ .
2.  $t = \frac{\ln \frac{3}{10}}{\ln \frac{3}{5}}$
3.  $y = -t - 1 + Ce^{-t}$ .
4. (a) The answer is yes, there is a solution. For example, you could choose the rectangle  $(1.5, 2.5) \times (-\infty, \infty)$ . (b) The answer is no, we don't know for sure if there is a solution or not.