

Math 41
Quiz 2
September 3, 2010



1. Find slope intercept form of the equation of the line through $(3, -1)$ and *perpendicular* to the line $y = \frac{3}{4}x + 5$.

2. Find the equation of the line through the points $(-2, 1)$ and $(-2, 4)$.

3. In the 1966 Penn State football season, new head coach Joe Paterno won 5 games, as of the 2009 season JoePa had increased his number of victories to 394.

(a) Assuming the number of victories, was increasing at a constant rate, find a linear model giving the number of wins, *N*, **in terms of the year, *t***, with $t = 6$ corresponding to the year 1966. *If necessary, round values to one decimal place.*

(b) Use your model to find the total number of wins by the year 2012.
If necessary, round values to one decimal place.

