$\mathbf{Math}\ \mathbf{10270}:\ \mathbf{Quiz}\ \mathbf{4}$

1. (5 points) Find the coordinate equation of the parabola with directrix y=-2 and focus (0,2).

2. (5 points) Find the intersection points of the line through (0,0) of slope 3 and the circle with center (1,0) and radius 3.