

Physics 5300, Theoretical Mechanics Spring 2015

Quiz 8

Given: Friday March 6

Problem 1 (a) Find the Poisson bracket of $f = p^2q + q^2$ and $g = pq$. (3 points)

(b) Suppose we wish to go from variables q, p to variables $Q(q, p), P(q, p)$. We set

$$Q = \frac{p}{1 - 3q} \tag{1}$$

Find a possible choice of P . (7 points)