Math 324 B, Fall 2018, Quiz 4

You have 3 minutes to complete the quiz. Each problem is worth 5 points.

Name: _____

1. Let $F(x,y) = \langle P(x,y), Q(x,y)\rangle$ be a vector field, where P and Q are differentiable real-valued functions $P, Q : \mathbb{R} \to \mathbb{R}$. Explain what "$F : \mathbb{R}^2 \to \mathbb{R}^2$ is a conservative vector field" means.

2. Give an example of two functions P and Q such that $F = \langle P, Q\rangle$ is *not* conservative, and explain how you know it isn't conservative.