Quiz 8 Calculus III Fall 2015 (Group Quiz)

Names:..
Solve the following problems. Each problem is worth 5 points.

Q1. Set up integral for **each** of the two orders integration. Explain which order of integration is **easiest**, then compute integral using easiest order of integration.

$$I = \iint\limits_{S} y \, dA, \quad S \text{ bounded by } y = x - 2, \quad x = y^2.$$

Q2. Compute by **changing to polar coordinates**.

$$I = \int_0^1 \int_y^{\sqrt{2-y^2}} (x + y)\, dx\, dy.$$