Group_____ Names_____

Group Quiz for Section 6.2

1. Suppose that X, Y have joint density

$$f(x, y) = \begin{cases} \frac{12}{7}(xy + y^2), & 0 \leq x, y \leq 1; \\ 0, & \text{otherwise.} \end{cases}$$

(You do not need to check that this really does define a density.) Calculate $\mathbb{E}[X^2 Y]$.