Name:_____

Math 2030, Fall 2017, Quiz 9
27 October 2017
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No calculators needed or allowed. In case you have temporarily forgotten, $3^5 = 243$.

Let $R = [0,4] \times [0,2]$. Evaluate the integral

$$\iint_R x\sqrt{xy+1}\; dA.$$

Hint: the integral $\int x\sqrt{xy+1}\; dy$ can be done using the substitution $u = xy + 1$; recall that x is treated as a constant in $\int \cdots dy$, so that $du = xdy$ when doing this substitution.