$\qquad$

## Quiz 6

1. Consider the double integral:

$$
\int_{0}^{1} \int_{1}^{e^{x}} d y d x
$$

a). Sketch the region of integration.
b). Use the appropriate cross-sections to express the double integral above in terms of $d x d y$ instead of $d y d x$.
2. Write the integral $\iint_{R} d A$ in two ways, one in terms of $d x d y$ and the other in terms of $d y d x$, where $R$ is the region sketched below.


