Name: ID #: Section #:

Q1) [**3pts**] Evaluate the integral by reversing the order of integration.

$$\int_0^{\sqrt{\pi}} \int_y^{\sqrt{\pi}} \cos(x^2)\ dxdy$$

Q2) [**3pts**] Evaluate

$$\iint_R (x+y)\ dA,$$

where R is the region that lies to the left of the y-axis between the circles $x^2+y^2=1$ and $x^2+y^2=4$.

Q3) [**4pts**] Find the volume of the solid bounded by the cylinder $y = x^2$, the plane $y + z = 1$ and the xy-plane.

Name: ID #: Section #:

Q1) [**3pts**] Evaluate

$$\iint_R (x+y)\, dA,$$

where R is the region that lies to the left of the y-axis between the circles $x^2+y^2=1$ and $x^2+y^2=4$.

Q2) [**3pts**] Evaluate the integral by reversing the order of integration.

$$\int_0^8 \int_{y^{1/3}}^2 e^{x^4}\, dxdy$$

Q3) [**4pts**] Find the volume of the solid bounded by the cylinder $x = y^2$, the plane $x + z = 1$ and the xy-plane.