- 1) Set up but do not evaluate the iterated integrals for $f(x,y) = x^2 e^y$ over the region R:
- a) $R = [1, 3] \times [5, 7]$

b) R is the region above the curve $y=x^3$ and below $y=\sqrt{x}$

- 2) Evaluate the following iterated integrals:
- a) $\int_0^2 \int_0^{x^2} xy \, dy \, dx$

b) $\int_0^1 \int_y^{2y} x^2 + y^2 \, dx \, dy$