MATE 3063 assignment 11: section 15.8

On your own, do exercises 1–16.

118. Evaluate the integral $\int_0^{2\pi}\int_0^{\pi/4}\int_0^{\sec\phi} (\rho\cos\phi)\rho^2\sin\phi \, d\rho \, d\phi \, d\theta$.

119-120. Exercises 19, 20.

121-122. Exercises 23, 25.

123. Find the volume of the solid common to the two balls inside the spheres

$$r = 2 \text{ and } r = 2\sqrt{2}\cos\phi.$$

124. Chose one of 41–43.

125. Exercise 48.