

Student handout

1. A right circular cone has circular base of radius R and height H , both measured in feet.
 - a) What is the volume of the cone?
 - b) Write down as many different integrals as you can for computing this volume.
 - c) Do at least two of these integrals.

For some integrals, you may wish to use the fact that

$$\cos(2\alpha) = 2 \cos^2 \alpha - 1 = 1 - 2 \sin^2 \alpha$$