Name: _____

Task Master: _____ Cynic: _____ Recorder: _____

MTH 254 **INTEGRATION** Spring 2015

Working in small groups (3 or 4 people), solve as many of the problems below as possible. Try to resolve questions within the group before asking for help. Each group member should then write up the solutions in their own words; Show your work! Full credit will only be given if your answer is supported by calculations and/or explanations as appropriate.

1. A cylinder has circular base of radius R and height H, both measured in feet.

   (a) What is the volume of the cylinder?

   (b) Write down as many different single integrals as you can for computing this volume.

   (c) Do at least two of these integrals.