

Warm-Up Problems and Lecture Problems
March 19, 2003

1.
 - (a) Find the equation of the line connecting the points $(5, 10)$ and $(10, 0)$.
 - (b) Consider the region between the y -axis and the line segment above. Rotate this region about the y -axis and draw the resulting solid.
 - (c) Find the area of a cross section ($A(y)$).
 - (d) Find the volume of the solid.
2. If 1 kilogram weighs 2.2 pounds, how many kilograms is a person who weighs 180 pounds?
3. Suppose your dog Fido has a mass of 10 kilograms.
 - (a) If Fido steps on your bathroom scale (measuring pounds), what should your scale read?
 - (b) Now you and Fido orbit in the space station with your bathroom scale. How much does Fido weigh in orbit? (What does your bathroom scale read now?)