Sept. 25, 1996

1. The area of the region bounded by the x-axis, the lines x = 2, x = 6 and  $y = \frac{1}{2} x + 2$  is given by the integral  $A = \int_{2}^{6} \left(\frac{1}{2}x + 2\right) dx$ .

Evaluate this integral to obtain the area A.

2. The area of the region can be obtained without the use of calculus. Show that the result of part 1 above agrees with the area so obtained.