

## Worksheet 18

**Name:**

1. Find the antiderivative  $\int (w + 2)^2 dw$
2. Find the antiderivate  $\int e^{3 \ln(x)} dx$
3. Evaluate the integral  $\int_0^{\frac{1}{2}} \frac{1}{\sqrt{1-y^2}} dy$
4. An object's velocity (in mph) at time  $t$  (in hours) is given by  $s(t) = \frac{1}{2t}$ .
  - (a) Find the distance the object travels between 1 and 4 hours.
  - (b) Find the average velocity of the object between 1 and 5 hours.