

3. (a)  $\frac{1}{2} RP$

(b)  $\frac{1}{6} RP$  mile-pounds

(c)  $\frac{2}{3} RP$  mile-pounds

4. 5580 foot-pounds

5. about 18,898 Joules

6. (a)  $\pi \left( \frac{32}{5} - \frac{16}{3}L + 2L^2 \right)$

(b)  $\frac{4}{3}$

(d)  $\frac{1}{b-a} \int_a^b f(x) dx$