

Problem Set 98

- 2a. 12,800 newtons
b. 64,000 joules

4. 1 linear unit/time unit

- 6a. $-\sin x$
b. $-\sin x$

8. $-\frac{\cos x}{x}$

10. $f_{\max} = 3$

12. $48\pi \text{ units}^3$

14. $V = \pi \int_1^{10} (\log x^2 + \log^2 x) dx$

16. $T_6 = 1.475$

- 18a. Neither
b. Even
c. Even
d. Odd

20. $(-1, 5)$

22. $\frac{dy}{dx} = \frac{y}{\sec(xy) - x}$

24. $a = -2, \quad b = 5$