

Problem Set 86

2. $v(t) = 3t^2 + 18t + 20$
 $x(t) = t^3 + 9t^2 + 20t - 9$

4. $a = 1; \quad b = -1$

6. $c = 0$

8. $c = \pm \frac{\sqrt{3}}{3}$

10. 0

12. $\frac{f'(x)}{f(x)} = \frac{1}{x} + \cot x - \tan x$

14. -1

16. $y' = \frac{1}{\sqrt{a^2 - x^2}}$

18. $\arcsin \frac{x}{3} + C$

20. $-e^{-x^2} + C$

22. -6

24. A