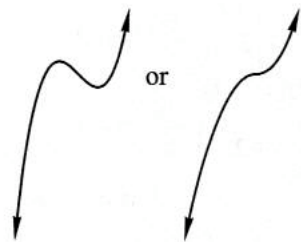


Calculus — Problem Set 33

2. 320

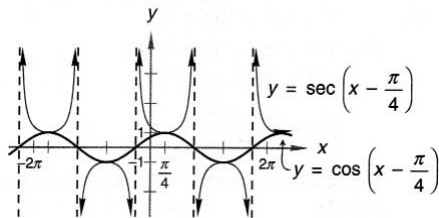
4.



6. $\sin u + C$

8. $\cos(2x)$

10.



12. $y \approx -0.8298 + 12.9678$

14. c) (2.6808, 5.9683)

d) (5.9683, 2.6808)

16. $\log_3 10 = \frac{\ln 10}{\ln 3} \approx 2.0959$

18. $x = \sin y$

20.

$$1 + 2(\sin x) \left[\cos \left(\frac{\pi}{2} - x \right) \right]$$

$$= 1 - 2 \sin x \sin x$$

$$= 1 - 2 \sin^2 x$$

$$= \cos(2x)$$

22. $\frac{1}{2}$

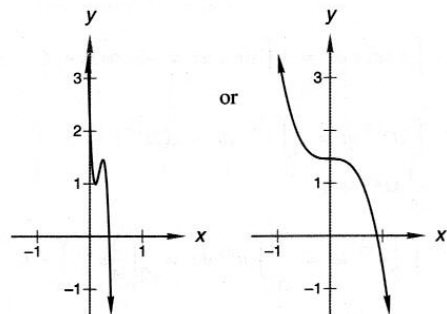
24. 720

Calculus — Problem Set 34

2. $\frac{dy}{dx} = \frac{2x + y}{3y^2 - x - 2y}$

4. 1

6. Inflection point: $\left(\frac{1}{6}, 1\frac{5}{27}\right)$



8. $x^5 + C$

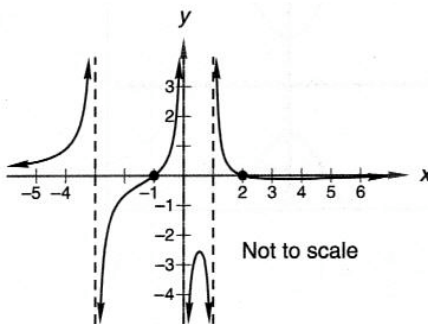
10. $\cos u + C$

12.

$$ds = -3u(udv + 2vdu)$$

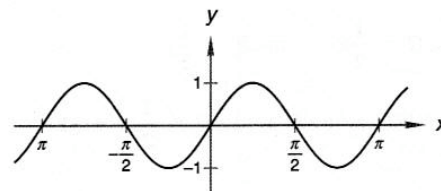
14. g

16.



18.

$$g(x) = f(2x) = \sin(2x)$$



20. $x = \ln y$

22. $y = \log_2 x = \frac{\ln x}{\ln 2}$

24. 35 ways