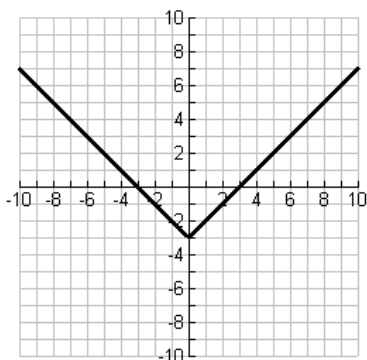
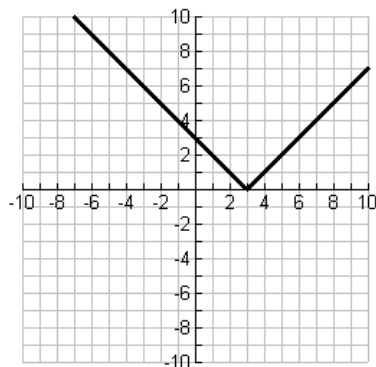


AB Calculus Test #3 (21-30) Review Answers

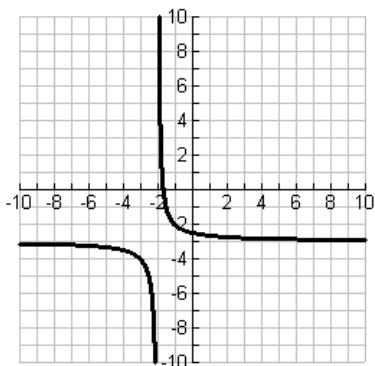
21. A)



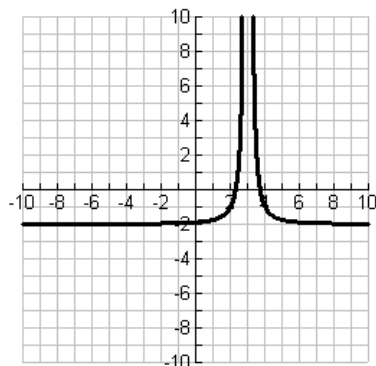
B)



C)



D)



22. $-3041280x^9y^3$

23. A) $x = \frac{\pi}{12}, \frac{\pi}{6}, \frac{7\pi}{12}, \frac{2\pi}{3}, \frac{13\pi}{12}, \frac{7\pi}{6}, \frac{19\pi}{12}, \frac{5\pi}{3}$

B) $y = -\frac{1}{3} + \sqrt{-\frac{2}{3}x^2 + \frac{4}{3}x + \frac{19}{9}}$, $y = -\frac{1}{3} - \sqrt{-\frac{2}{3}x^2 + \frac{4}{3}x + \frac{19}{9}}$

24. $s'(t) = \frac{1}{2}t^{-\frac{1}{2}} - 2t^{-3} + \frac{2}{3}t^{-\frac{5}{3}} = \frac{1}{2\sqrt{t}} - \frac{2}{t^3} + \frac{2}{3\sqrt[3]{t^5}}$

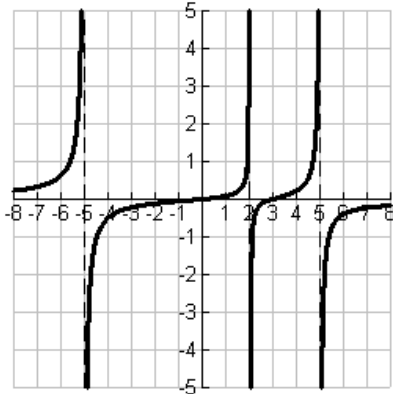
25. $\frac{dy}{dx} = -4x^{-2} - 3\sqrt{3}x^{\sqrt{3}-1} + 6\pi x^{\pi-1}$

26. A) $t \approx 91.2428$ days B) $y' = \frac{3}{x} + 2\cos x - 6e^x + 7\sin x$

27. A) $f'''(3) = \sin 3 \approx .1411$ B) 40

C) $y = \frac{1}{3}(x - 3) + \ln 3 = \frac{1}{3}x + \ln 3 - 1$

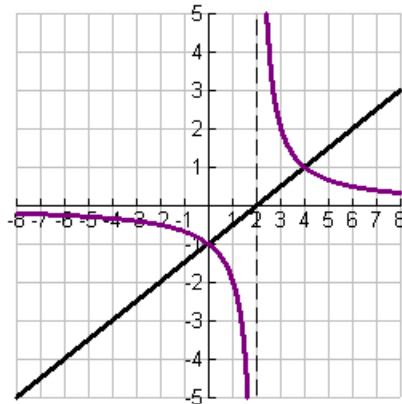
28. A)



B) $\cos 6 \approx .9602$

29. A) $dy = -6x^{-3}dx - \frac{4}{t}dt - 6\sin u \, du - \frac{2}{5}k^{-\frac{3}{5}}dk$ B) 766,021,601

30. A)



B)

