

$$83. \ell = 2t + 1$$

$$w = \sqrt{t}$$

$$A = (2t + 1)\sqrt{t} \quad 2t^{3/2} + t^{1/2}$$

$$\frac{dA}{dt} = 3t^{1/2} + \frac{1}{2}t^{-1/2}$$

$$47. \quad \frac{3(1-\sin x)}{2\cos x} = \frac{3-3\sin x}{2\cos x}$$

$$\frac{2\cos x(-3\cos x) - (3-3\sin x)(-2\sin x)}{(2\cos x)^2}$$

$$\frac{-6\cos^2 x + 6\sin x - 6\sin^2 x}{4\cos^2 x}$$

$$\frac{-6}{4} \left[\frac{\cos^2 x}{\cos^2 x} - \frac{\sin x}{\cos^2 x} + \frac{\sin^2 x}{\cos^2 x} \right]$$

$$48. \quad y = \frac{\sec x}{x}$$

$$\frac{x(\sec x \tan x) - \sec x(1)}{x^2}$$

$$\frac{\sec x(x \tan x - 1)}{x^2}$$

$$116. v(t) = \frac{100t}{2t+15}$$

$$a(t) = \frac{(2t+15)(100) - 100t(2)}{(2t+15)^2}$$

$$84. \quad r = \sqrt{t+2}$$

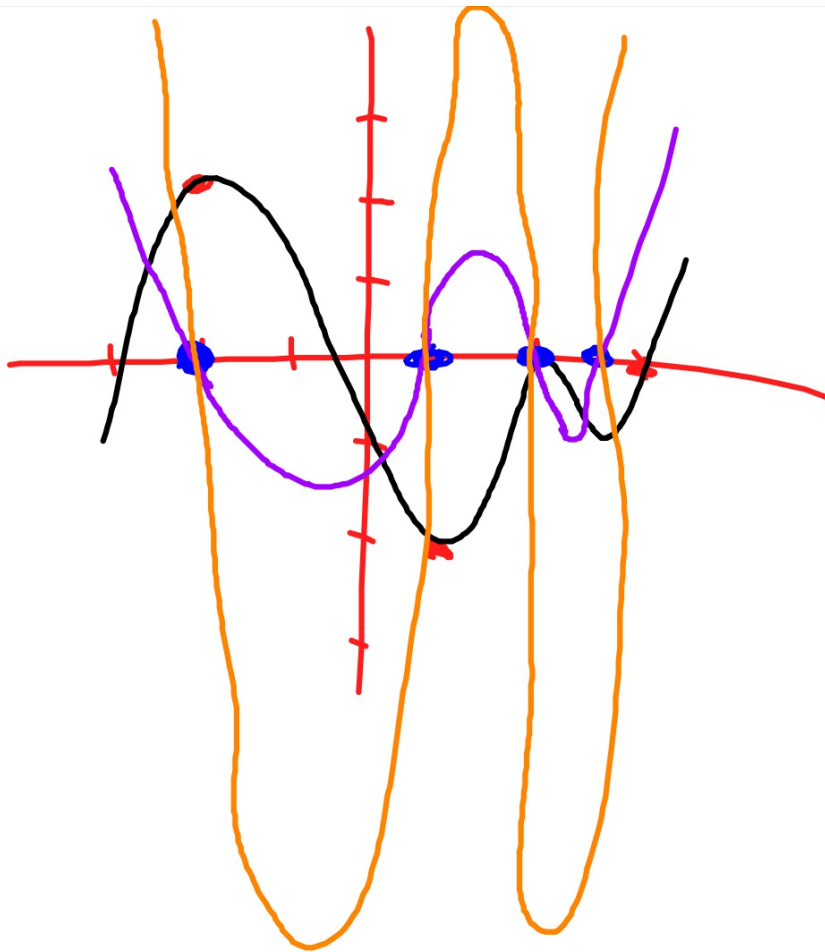
$$h = \frac{1}{2}t^{1/2}$$

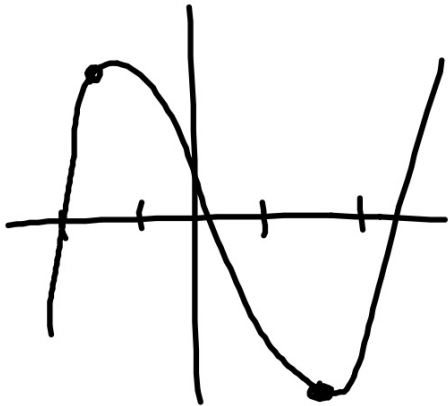
$$V = \pi r^2 h$$

$$= \pi (\sqrt{t+2})^2 \left(\frac{1}{2}t^{1/2}\right)$$

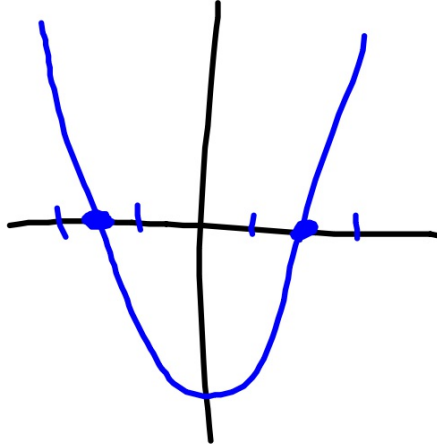
$$= \pi \left[1 \left(\frac{1}{2}t^{1/2}\right) + \frac{1}{4t^{1/4}}(t+2) \right]$$

$$\begin{array}{l} 7x^3 \\ 7(x^3) \\ 7(3x^2) \\ 21x^2 \end{array}$$

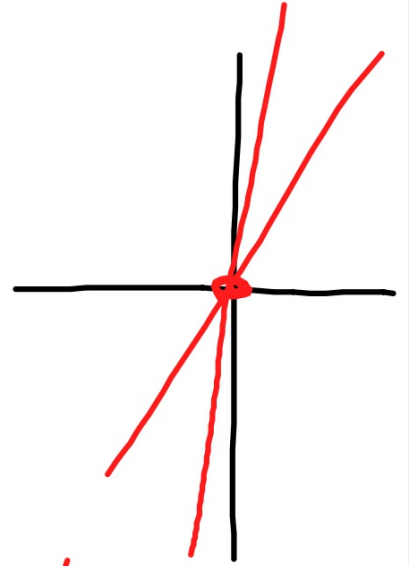




x^3



$3x^2$



$6x$

\neq

