

Homework (winter/spring)#6 answers.

2. a) $1 + \sqrt{13}$ or approx. 4.606

b) $2 \cos(7\pi t) + \sqrt{(16 - 4 \sin^2(7\pi t))}$

c) $s = |y'| = \left| -14\pi \sin(7\pi t) + \frac{-28\pi \sin(7\pi t) \cos(7\pi t)}{\sqrt{16 - 4 \sin^2(7\pi t)}} \right|$

3. $y = 1.148x + 6.03$ and $y = 7.74x + 7.5$