Math 115 Fall 2013 Exam 2 Answers

1) a) $\dfrac{2\tan(x) - x\sec^2(x)}{7x^3}$

b) $2\sec(\sqrt[3]{6x-1})\tan(\sqrt[3]{6x-1})(6x-1)^{-2/3}$

2) a) $1200(24 - 30t + 6t^2)$

b) $t = 5/2$

3) $y = -x/2 + 1/\sqrt{2}$

4) a) 19 feet away

b) No.

c) $\tan(\theta) = \dfrac{y}{x}$

d) $43/365$ rad/s

5) a) $1/5$

b) $\dfrac{1}{81}$