## Math 126 C - Spring 2010 Mid-Term Exam Number Two May 13, 2010 Answers

1. (a)  $\sqrt{5}$  cm/sec. (b)  $t = \frac{\pi}{4}$ .

2. 
$$\kappa = \frac{2\sqrt{2}}{73^{3/2}}$$

3. (a)  $\left(\frac{1}{5}, \frac{1}{2}, \frac{77}{10}\right)$ .

(b) There are four critical points (1,1) (local min), (1,-1) (saddle point), (-1,1) (saddle point), (-1,-1) (local max).

4. 
$$V = \int_0^6 \int_{3-\frac{1}{2}y}^{6-y} xy \, dx \, dy$$
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