

Homework 1 (Due: 9/25)

題號以 Zill, 第九版, metric version 為準

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|--------------------|-------------------|-------------------|
| (1) Sec. 2-2, 5, | (2) Sec. 2-2, 9, | (3) Sec. 2-2, 19, |
| (4) Sec. 2-2, 27, | (5) Sec. 2-2, 45, | (6) Sec. 2-3, 13, |
| (7) Sec. 2-3, 15, | (8) Sec. 2-3, 35, | (9) Sec. 2-3, 37 |
| (10) Sec. 2-3, 44, | (11) Sec. 3-1, 1 | |

Note:

(a) The solutions in (2), (3), and (7) can be expressed by implicit solutions.

(b)
$$\frac{d}{dx} \sin^{-1} x = \frac{1}{\sqrt{1-x^2}}$$

$$\frac{d}{dx} \tan x = \sec^2 x, \quad \frac{d}{dx} \sec x = \sec x \tan x \quad \text{may be applied.}$$

(c) In (7), try to exchange the roles of independent and dependent variables.

(d) It is unnecessary to graph $y(x)$ in (9).