

A10623-280 W4 HW
材宇軒.

例 7.13. 抽 200 男, 108 有買; 顧客水準 0.05.
150 女, 78 有買

(1) $H_0: p_1 - p_2 \leq 0, H_1: p_1 - p_2 > 0$

(2) $\alpha = 0.05.$

$z_{0.05} = 1.645.$

(3) $C = \{Z > z_\alpha\} = \{Z > 1.645\}$

(4) $n_1 = 200, n_2 = 150, X = 108, Y = 78, \hat{p}_1 = \frac{108}{200}, \hat{p}_2 = \frac{78}{150}$
 $= 0.54 \quad = 0.52$

$$\bar{p} = \frac{X + Y}{n_1 + n_2} = \frac{108 + 78}{200 + 150} = 0.531$$

$$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\bar{p}(1-\bar{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} = \frac{0.54 - 0.52}{\sqrt{0.531(1-0.531)\left(\frac{1}{200} + \frac{1}{150}\right)}} = 0.371.$$

\therefore 男性投保意外險比例, 沒多於女性 #.