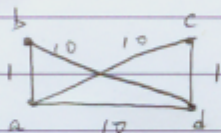


Revised by Kun-Mao Chiu

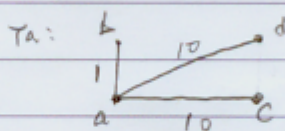
Fall 2010

2010/3/30

G:



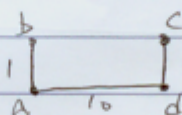
Medium 是 a or d



$$\sum_v d_{Ta}(a, v) = 1 + 10 + 10 = 21$$

$$C(Ta) = 2 \times [1 \times 3 + 10 \times 3 + 10 \times 3] = 126$$

但 MRCT 是:

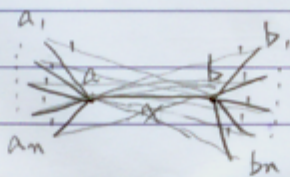


$$C(MRCT) = 2 \times [1 \times 3 + 1 \times 3 + 2 \times 2 \times 4] = 92$$

及  $X=10$ ,  $C(Ta) = 12X + 6$ ,  $C(MRCT) = 8X + 12$

$$\Rightarrow \frac{C(Ta)}{C(MRCT)} = \frac{8X+12}{12X+6} \rightarrow \frac{8}{12} = \frac{2}{3} = \frac{3}{2}$$

若拓展此圖如下: ( $X > 1$ )



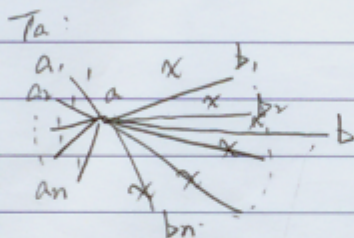
a 與 b 相連, 長度 X

a 與  $a_1 \sim a_n$  相連, 長度 1

a 與  $b_1 \sim b_n$  相連, 長度 X

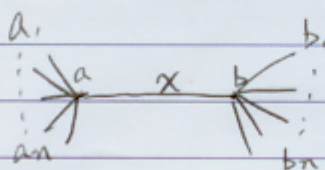
同理於 b 對於  $a, a_1 \sim a_n, b_1 \sim b_n$

則 Medium 亦為 a or b



$$C(Ta) = 2 \times [1 \times n \times (n+1) + X \times (n+1) \times (n+1)]$$

但 MRCT 為:



$$C(MRCT) = 2 \times [1 \times n \times (n+1) + X \times n \times n]$$

$$(n+1) \times (n+1)$$

$$\therefore \frac{C(Ta)}{C(MRCT)} = \frac{(n+1)(n+1)X}{n^2 X} \rightarrow$$

$$\frac{C(Ta)}{C(MRCT)} \sim \frac{(2X+4)n^2}{(X+8)n^2}$$

(若  $X \gg 1$ )

(若  $n \rightarrow \infty$ )

$\rightarrow 2$