Corrections to: Mathematics of fairness. S. N. Chiu, and L. Ling. Series: Texts in general education, Vol. 1, HKMS, Hong Kong, 2010.

July 7, 2011

P.13

Democrat candidate d_i spends in constituency i compared with the pro-Beijing candidate r_i. To estimate how many votes that the voters may have, we calculate the *expected popular vote*.

P.14

$$EPV_D = \sum_{i=1}^{k} n_i p_i = n_1 p_1 + n_2 p_2 + \cdots + n_k p_k, \qquad (1.2)$$

P.29

raise the ranking of the winner, the Green company, then the ballots for the new election will look like those shown in Table 2.4. Again, no company gets the 15 votes

P.30

Table 2.7 splits the 20 voters into two groups. In Group 1, both the winner A and canditate D are eliminated. This gives eight votes (out of 11) to B in the second round.

P.69

The SSPI of C is $(3\times 6!)/7! = (3\times 6!)/(7\times 6!) = 3/7$. We now return to the members. The remaining $7! - 3\times 6! = (7-3)\times 6! = 4\times 6!$ permutations must have one

P.75

$$C_r^n = \frac{n!}{r!(n-r)!}. \qquad (4.1)$$

P.81

weight, and thus constitute the minimal winning coalition. Second, winning coalition $\{P_1, P_3\}$ with no extra votes must be the minimal one. The third system $\{P_1, P_2, P_3\}$, is not a minimal winning coalition because P_2 and P_3 are not critical. ◇

P.109

using the Hamilton method with a *special rule*. According to Legislative Council Ordinance 19(2), the number of seats allocated to a geographical constituency must

P.110

Geographical constituencies	Standard quota	Residue -	Hamilton apportionment	Actual apportionment

P.114

	With cap		Without cap	
Geographical constituencies	Seats allocated	District population	Seats allocated	District population

P.131

eyes of Business department, the values of U and V, which were originally equal, have now been amended. Although U' is worth no more than 1/3, the Business department envies the department that gets V'. ◇