25. Mrs Lee wants to find a formula to calculate the exact monthly amount that was spent on water services (W) in her home from October 2007 to April 2008. She figured from the bills in October to December 2007 that

(i) the water usage (V m^3) is first multiplied to the tariff rate (T per m^3),

(ii) the product in (i) is then multiplied by 1.3 and 1.07,

(iii) $0.3V$ is then added to (ii) and

(iv) finally 6 is added to (iii) to arrive at W.

(a) (i) Show that an equation connecting W, V and T is $W = 1.391VT + 0.3V + 6$.

    (ii) In January 2007, the water usage was 19.5 m^3 and the tariff rate was $1.17 per m^3. Calculate the amount paid for water services in that month.

(b) The sanitary appliance fee is a fixed amount that is included in the amount paid for water services every month. Write down Mrs Lee's monthly sanitary appliance fee.

(c) (i) Make V the subject of the formula $W = 1.391VT + 0.3V + 6$.

    (ii) In February 2008, the amount paid for water services was $36.80 and the tariff rate was $1.17 per m^3. Calculate the water usage in that month.

26. The table shows some information on the Korean, Taiwanese and Australian tourists who visited Singapore in 2004.

Nationality	Number of tourists arrived (thousand)	Average length of stay (days)	Average expenditure per tourist per day	Average exchange rate: 1 Singapore dollar equals
Korean	361.1	3.2	140 000 Korean won	677 Korean won
Taiwanese	182.4	3.2	4000 Taiwan dollars	19.77 Taiwan dollars
Australian	561.2	3.2	x Australian dollars	0.804 Australian dollars

(a) Estimate the total expenditure of the Korean and the Taiwanese tourists to Singapore in 2004. Give your answer correct to the nearest million Singapore dollars.

(b) The estimated expenditure of the Australian tourists to Singapore in 2004 was 4.467×10^8 Singapore dollars. Estimate the average expenditure per Australian per day in

    (i) Australian dollars,

    (ii) Singapore dollars.

(c) Which group of tourists spent the most during their stay in Singapore?

(d) Estimate the mean expenditure per tourist per day of the 3 groups of tourists to Singapore in 2004. Give your answer correct to the nearest Singapore dollar.