

17. The cash price of a high definition television set (HDTV) is \$4500. Mr Leow bought the HDTV by paying a 20% downpayment and monthly instalments of \$150 over  $n$  months.
- Express the extra amount payable by hire-purchase in terms of  $n$ .
  - Suppose that the flat rate of interest is 10% p.a.  
Form an equation in  $n$  and solve it.
  - Hence, write down the duration of the hire-purchase in years and months.
18. In a particular month, a household paid \$42 for the usage of a total of 180 kWh of electricity and gas. The tariff rates for electricity and gas were 24 cents and 18 cents respectively in that month. Calculate the amount of electricity and gas used in kWh.
19. The following table shows the average exchange rates of selected foreign currencies against the Singapore dollar on a particular day.

Unit and Currency	Singapore Dollars
1 Euro	2.1435
1 Hong Kong dollar	0.174
1 British pound	2.678

- Represent the exchange rates by a  $3 \times 1$  matrix  $E$ .
  - The matrix  $M$  is  $\begin{pmatrix} 500 & 2400 & 380 \end{pmatrix}$ . Compute  $ME$  and interpret the result.
20. Use the information in the given table to answer this question.
- For the year of assessment 2007, the individual income taxes payable by two colleagues, Ms Wong and Mr Ng, are \$1707.50 and \$5910 respectively.
- Calculate the chargeable incomes of
    - Ms Wong,
    - Mr Ng.
  - Suppose that the chargeable income of their supervisor, Mr Tan, is  $\frac{3}{4}$  of their combined chargeable income.
    - Find the chargeable income of Mr Tan.
    - Hence, calculate the individual income tax payable by Mr Tan.
  - Express the total individual income tax payable by Ms Wong and Mr Ng as a percentage of the individual income tax payable by Mr Tan.

For year of assessment 2007	Chargeable Income (\$)	Rate (%)	Gross Tax Payable (\$)
On the first	20 000	0	0
On the next	10 000	3.5	350
On the first	30 000		350
On the next	10 000	5.5	550
On the first	40 000		900
On the next	40 000	8.5	3 400
On the first	80 000		4 300
On the next	80 000	14	11 200
On the first	160 000		15 500
On the next	160 000	17	27 200
On the first	320 000		42 700
Above	320 000	20	