

ERRATA

MATHEMATICS FOR AUSTRALIA 11

Essential Mathematics

First edition - 2015 initial print

The following erratum was made on 18/Jul/2018

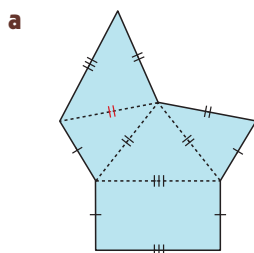
page 210 **CHAPTER 10 ACTIVITY 2** part **2 a** original URL no longer works, instead use:

- 2** Find the last four electricity bills for your household, so that you have information about your household's energy use over the past year.
 - a** Visit www.energymadeeasy.gov.au/benchmark to determine the typical energy use for your household. How does your household energy use compare with the typical energy use?

The following errata were made on 15/Aug/2016

page 117 **CHAPTER 5 EXERCISE 5H** question **2 a** should include double tick mark:

- 2** Draw and name the solids which would be formed from the following nets:

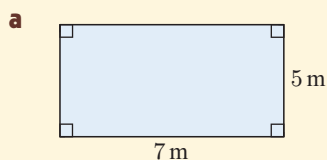


page 159 **CHAPTER 7 EXAMPLE 7** question **b** should have triangle height be 6 cm:

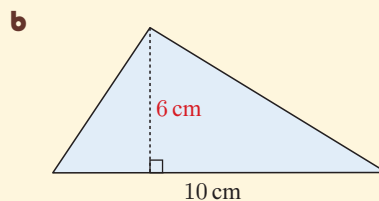
Example 7

Self Tutor

Find the area of:



$$\begin{aligned} \mathbf{a} \quad A &= \text{length} \times \text{width} \\ &= 7 \times 5 \text{ m}^2 \\ &= 35 \text{ m}^2 \end{aligned}$$



$$\begin{aligned} \mathbf{b} \quad A &= \frac{1}{2} \times \text{base} \times \text{height} \\ &= \frac{1}{2} \times 10 \times 6 \text{ cm}^2 \\ &= 30 \text{ cm}^2 \end{aligned}$$

Example 4



You would like to earn \$6000 in interest on a 4 year investment of \$18 000. What flat rate of interest would you need to find?

$$I = 6000, \quad P = 18\,000, \quad n = 4$$

$$\text{Now } I = P \times i \times n, \quad \text{so } i = \frac{I}{P \times n}$$

$$\therefore i = \frac{6000}{18\,000 \times 4}$$

$$\therefore i \approx 0.0833$$

A flat rate of interest of $8\frac{1}{3}\%$ p.a. is required.

To convert the interest rate from a decimal to a percentage, shift the decimal point two places to the right!



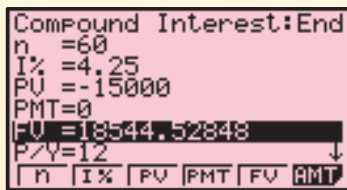
Example 10



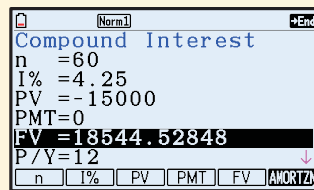
Sally invests \$15 000 in an account that pays 4.25% p.a. compounded monthly. How much is her investment worth after 5 years?

$$N = 5 \times 12 = 60, \quad I\% = 4.25, \quad PV = -15\,000, \quad PMT = 0, \quad P/Y = 12, \quad C/Y = 12$$

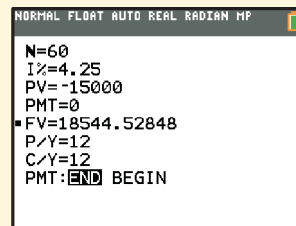
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$$\therefore FV \approx 18\,544.53$$

Sally's investment is worth \$18 544.53 after 5 years.

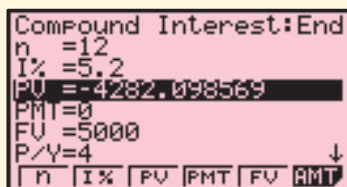
Example 11



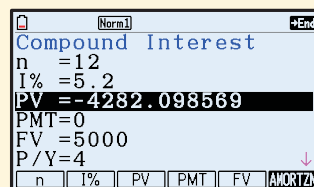
Halena is investing money in a term deposit paying 5.2% p.a. compounded quarterly. How much does she need to deposit now, in order to collect \$5000 at the end of 3 years?

$$N = 3 \times 4 = 12, \quad I\% = 5.2, \quad PMT = 0, \quad FV = 5000, \quad P/Y = 4, \quad C/Y = 4$$

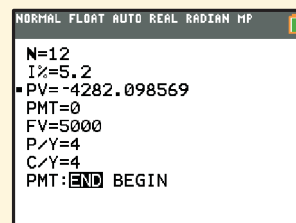
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$$\therefore PV \approx -4282.10$$

Thus, \$4282.10 needs to be deposited.