## **Parking charges**

This task is about expanding, simplifying, and changing the subject of the equation.



A parking building charges \$3 for parking up to 2 hours and an additional \$2 for every hour (or part of an hour) after that.

a) What is the cost of parking

- i) for 30 minutes? \$\_\_\_\_\_
- ii) for 1 <sup>3</sup>/<sub>4</sub> hours? \$\_\_\_\_\_
- iii) for 4 hours? \$\_\_\_\_\_
- iv) for 5 <sup>1</sup>/<sub>2</sub> hours? \$\_\_\_\_\_

For cars parked longer than 2 hours, the cost of parking is given by the equation:

c = 3 + 2 (t - 2)

Where: *c* is the cost in dollars

*t* is the time parked (in whole hours)

b) Expand and simplify c = 3 + 2(t - 2)

c) Make *t* the subject of the equation: c = 2 (t - 2) + 3

Published on Assessment Resource Banks (https://arbs.nzcer.org.nz)