 Substitution

Part 1: Match a worded description to an equation

This activity could be implemented in a number of ways:

* A student may work through the task independently.
* Students could work in pairs, the worded descriptions could be given to one student and the equations to a second and work together to match solutions.

| Worded description | Equation |
| --- | --- |
| Emma paid for 4 chocolate bars with a $10 note and received $3 in change.  ( is the cost of the chocolate bar) |  |
| John shared 3 chocolate bars equally among 4 friends (not including himself). Each friend received 12 squares of chocolate.  ( is the number of squares of chocolate in each bar) |  |
| Ian currently has $12 and receives $3 pocket money per week. He wants to save $45 to buy a new game on his tablet.  ( is the number of weeks required to save the money) |  |
| The sum of three consecutive whole numbers has a total of 45.  ( is the value of the first number) |  |
| The length of a rectangular playing field is twice its width. The perimeter of the playing field is 42 metres.  ( is the width of the playing field) |  |
| The outdoor temperature is currently and it dropping by per hour. After hours the temperature will be . |  |

Part 2: Match a worded description to an equation to a solution

This activity could be implemented in a number of ways:

* A student may work through the task independently.
* Three students could work together, with each student given one column of the questions.

| Worded description | Equation (and values to substitute) | Answer |
| --- | --- | --- |
| The cost of a taxi ride, , is equal to an initial cost of $1.50 and $0.50 for every kilometre of the journey ( is the length of the journey in kilometres). Calculate the length of a taxi ride costing $12. | , and |  |
| Tannika is an estate agent. She receives a weekly income, , of $210 plus 0.1% of any sales made during the week, where is the total sales. Last week, Tannika’s income was $470. Calculate the total sales during this week. | , |  |
| The scoring system in AFL defines a goal equal to 3 points and a behind equal to 1 point. Calculate the number of goals, if a team scored 102 points with 15 behinds.  ( is the total number of points, is the number of goals, is the number of behinds) | , |  |
| An international call costs an initial connection fee of 20c and 12c per minute for the duration of the call. Calculate the duration of a call costing $1.64.  ( is the cost of the call, is the duration of the call in minutes) | , |  |
| A plumber charges a call out fee of $50 and $85/hr for the duration of the job. A recent job cost $220. Calculate the duration of the job.  ( is the total cost of the job, is the duration of the job in hours) | , |  |