

## Algebra problems

Expressions can be simplified by putting the terms together, for example  $h + h + h$  can be written as  $3h$  and  $5y + 3 + 4 - 2y$  can be written as  $3y + 7$ . Expressions are also a shorthand way of writing longer number statements or sentences, for example 'Five less than a mystery number' can be written as  $x - 5$ .

### 1. Simplify the following expressions.

- $f + f + f + f =$  \_\_\_\_\_
- $5 + n + 10 =$  \_\_\_\_\_
- $g + 6 + g - 8 =$  \_\_\_\_\_
- $2h + h + 3h - h =$  \_\_\_\_\_
- $g + g + g + h + h + h =$  \_\_\_\_\_
- $3x + 2y + 2x - y =$  \_\_\_\_\_



### 2. The mystery number is $x$ . Draw a line to match each description in words with the correct expression.

The mystery number multiplied by six and added to two.	$x + 3$
Two divided by the mystery number.	$50 \div x$
Three more than the mystery number.	$6x + 2$
The mystery number added to two then multiplied by six.	$x^2$
The mystery number divided by two.	$x \div 50$
The mystery number divided by fifty.	$2 \div x$
Fifty divided by the mystery number.	$x \div 2$
The mystery number multiplied by itself.	$6(x + 2)$