

# Simplifying Expressions

Simplify these four expressions.

(a)  $(3x + 4y) + 2(x + 2y)$

(b)  $4(2x + 5y) - 3(x + 4y)$

(c)  $3(2x + 3y) - (x - y)$

(d)  $3(x + 3y) + (2x - y)$

Which one is the odd one out?

If you finish, try to make up some more that fit the pattern.

## The answer is “ $5x + 8y$ ”: What’s the question?

$5x + 8y$  is the answer – your job is to make up the questions!

The only brackets that you are allowed to use are:

$$(x + y) \quad (x + 2y) \quad (x - 2y) \quad (x + 4y) \quad \text{and} \quad (2x + 3y)$$

Pick any **two** of these brackets and combine them with numbers and + or – to make an expression.

For example, you could pick

- the brackets  $(x + 2y)$  and  $(x + 4y)$
- and the numbers 3 and –2

and make

$$3(x + 2y) - 2(x + 4y)$$

... but unfortunately that **doesn't** make  $5x + 8y$ .

Can you find a way to make  $5x + 8y$  using **two** different brackets?

Can you find a way to make  $5x + 8y$  using **more than two** different brackets?

Can you find a way to make  $5x + 8y$  using **all five** brackets?