Mathematics

Expressions, equations and inequalities
Factorising expressions

Independent Task

Ms Jones

Try This

Fill in the blank spaces:

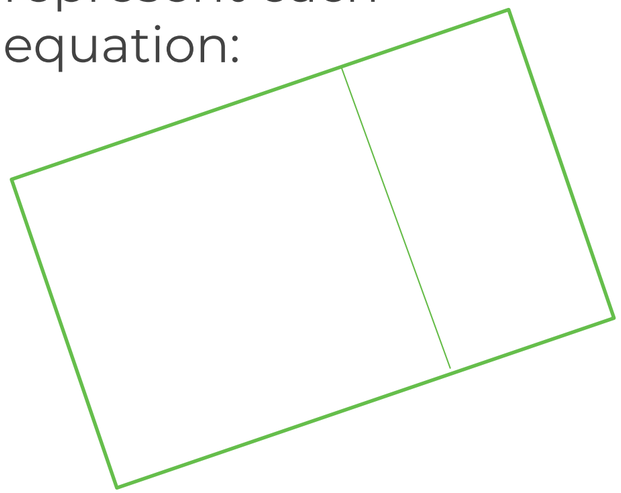
$144 = \square \times \square$

$\square \times \square = 99 + 99$

$3a + 3a = \square \times 3a = \square$

$3 \times 11 + 3 \times 19 = \square \times \square$

Draw an array to represent each equation:



Independent task

1. Fill in the gaps to make all four cards equivalent.

$a + a + a + a + a + a + \_\_\_ + \_\_\_ + \_\_\_$

$\_\_\_ \times 2 + \_\_\_ \times a$

$2 + a + a + 2 + a + a + 2 + a + a$

$\_\_\_ (2 + \_\_\_a)$

2. Complete the statements by factorising the expressions in different ways.

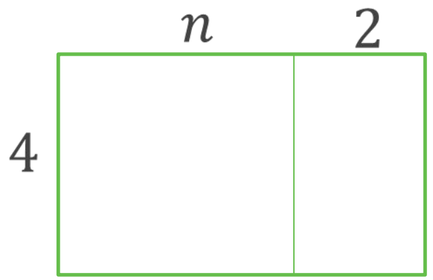
   a) $6a + 9 = 3(\_\_a + \_\_)$

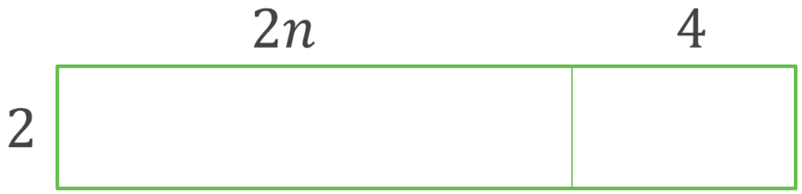
   b) $12a - 8 = 2(\_\_a - \_\_) = \_\_(3a - 2)$

   c) $12m + 18n = 2(\_\_m + \_\_n) = \_\_(4m + 6n)$

Explore

$$4(n+2) \quad = \quad 4n+8 \quad = \quad 2(2n+4)$$





Expand each expression then factorise them in different ways:

$4(2n+2)$

$6(n-3)$

$3(2n+1)+7(2n+1)$