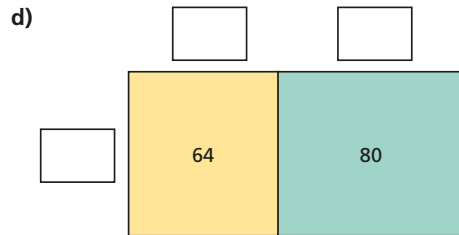
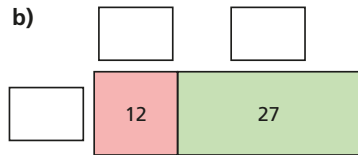
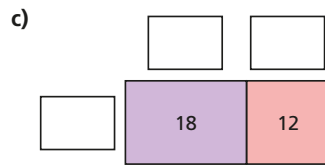
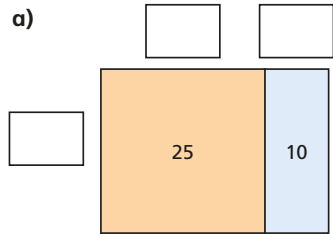


Factorise into a single bracket

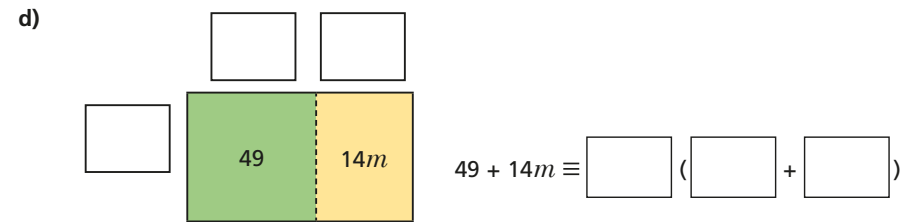
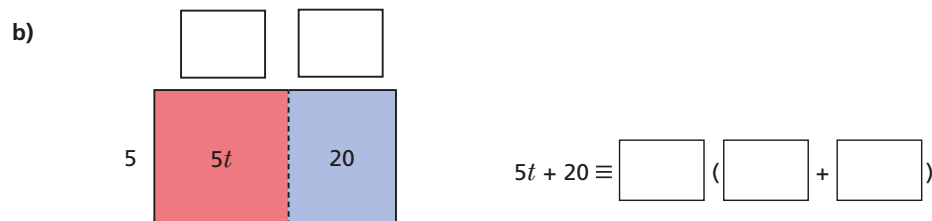
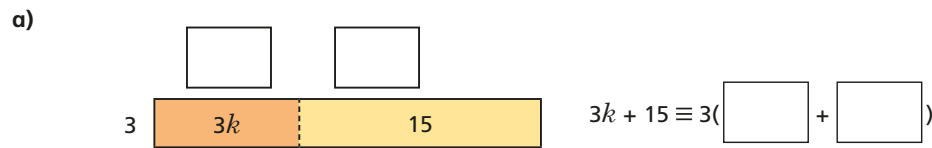
1 Find the missing numbers.



Is there more than one answer?



2 Fill in the boxes and complete the factorisations.

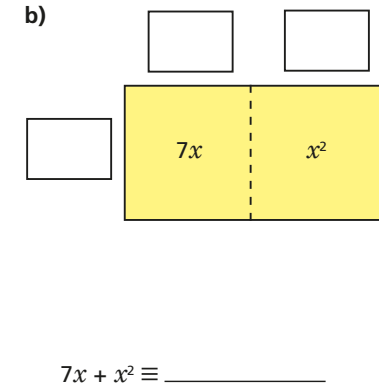
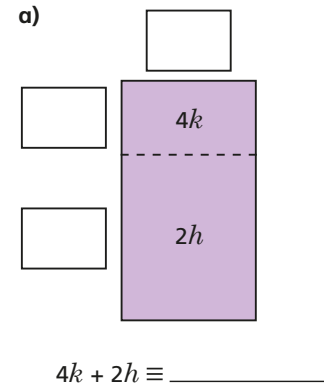


3 How many ways can you factorise $24k + 16$?

Compare answers with a partner.



4 Use the rectangles to factorise the expressions.



c)

$6s + 9 \equiv 3 (\quad + \quad)$

d)

$49 + 14m \equiv \quad (\quad + \quad)$

3 How many ways can you factorise $24k + 16$?
Compare answers with a partner.

4 Use the rectangles to factorise the expressions.

a)

$4k + 2h \equiv \underline{\hspace{2cm}}$

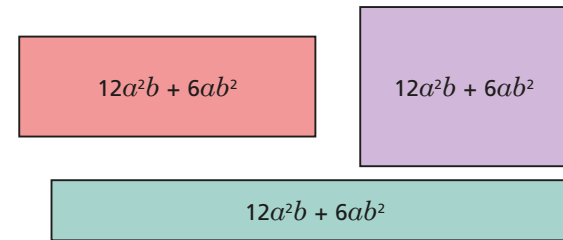
b)

$7x + x^2 \equiv \underline{\hspace{2cm}}$

5 Factorise the expressions fully.

- a) $3m + 12$
- b) $9m + 12$
- c) $10y - 8$
- d) $20 + 25x$
- e) $42 - 12y$
- f) $16p + 24n$
- g) $6d - 6$
- h) $g^2 + 5g$

6 These rectangles have the same area but different length sides.
Give possible side lengths for each rectangle.



- 7
- a) Factorise $t^2 + t$
 - b) Use your understanding of factors to explain why there is no integer, t , where $t^2 + t = 13$
 - c) If t is an integer, explain why $t^2 + t = 14$ has no solutions.
 - d) If t is an integer, explain why $t^2 + t$ must be an even number.