

COMMON FACTORS

MTH 4-14b

I can find the factors of algebraic terms, use my understanding to identify common factors and apply this to factorise expressions.

Pupils should be able to:

- Multiply out brackets eg $2(x + 7)$
- Factorise numbers eg $15 = 3 \times 5$
- Find numerical common factor eg $12x + 16 = 4(3x + 4)$
- Find algebraic common factors eg $12x^2 + 16x = 4x(3x + 4)$
- Check result of a factorisation by multiplying out

PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

	DEVELOPING	CONSOLIDATING	SECURE
Highest Common Factors (Question 1)			
Numerical Common Factors (Question 2)			
Algebraic Common Factors (Question 3 and 4)			
Problem Solving (Question 5)			

SELF EVALUATION EXERCISE

DATE DUE _____

1. Find the highest common factor (HCF) of:

- a) 4 and 10 b) 24 and 36 c) 16 and 4x
d) $12gh$ and $30gj$ e) $10x^2$ and $25xy$

2. Factorise the following by removing the highest common factor:

- a) $4y + 12$ b) $5t - 35$ c) $12g - 18$ d) $30h - 12$

3. Factorise the following by removing the highest common factor:

- a) $ab + ac$ b) $3xy - 7xz$ c) $4rs - 5st$ d) $6g^2f + 10gf^2$

4. Factorise the following by removing the highest common factor:

- a) $3xy + 9xz$ b) $12rs - 30rt$ c) $4ab + 12ac - 10ad$ d) $6j^2k^2 - 21jk$

5. The area of a rectangle is given by **Area = length $\times$ breadth**. In each of the following rectangles find the missing length marked with a ?:

