

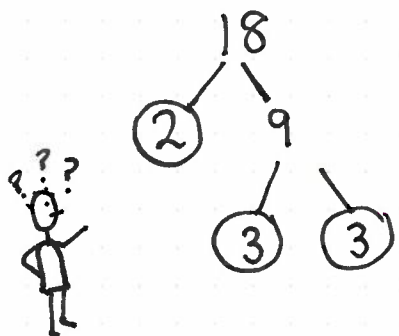
MATHS CONF 21

PETE MATTOCK

PETERBOROUGH SATURDAY 12th OCTOBER

TEACHING THE WHY BEFORE THE HOW?

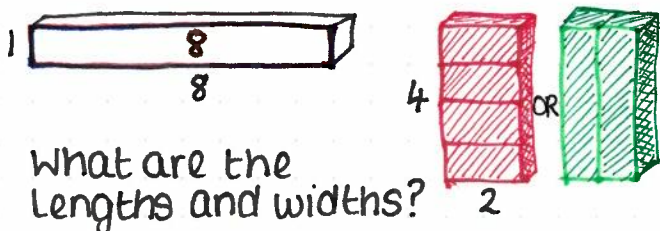
FACTORS AND FACTORISING



OR $3x^2 - 15x$
OR $3x(x - 5)$ OR

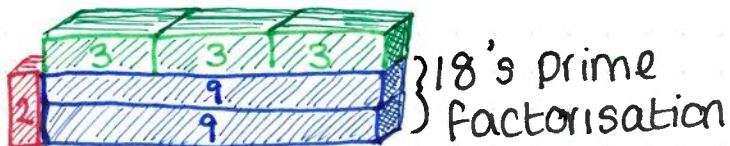
	x	$+3$
x	x^2	$+3x$
$+2$	$+2x$	$+6$

Which rectangles can you make with an area of 8?



What are the lengths and widths?

THESE ARE THE FACTORS OF 8

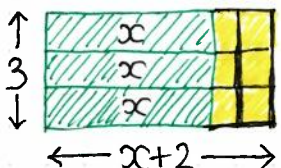


} 18's prime factorisation

Can you create these lengths using only prime number rods?

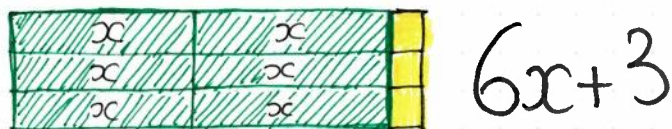
FACTORISE $3x + 6$

Can you make a rectangle?



What are the lengths and widths?

THESE ARE THE FACTORS OF $3x+6$



length? $2x+1$

width? 3

$3(2x+1)$ is the factorisation

SEQUENCE OF Q's FOR TEACHING

- $3x + 6$
- $6x + 3$
- $6x + 9$
- $6x - 9$
- $9 - 6x$

prime

A problem from open middle

$$\bigcirc x + \bigcirc = \bigcirc (\bigcirc x + \bigcirc)$$

SKETCHNOTE BY @mrshawthorne7