

\* Factor  $4x^2 - 17x + 15 =$

$$\begin{array}{cccc} (1x & & 4x & 15) \\ & \searrow & \nearrow & \\ & 4x & & \\ & \searrow & \nearrow & \\ & & 15x & \end{array}$$

$\frac{4}{1 \cdot 4}$	$\frac{15}{1 \cdot 15}$
$2 \cdot 2$	$3 \cdot 5$

$$\begin{array}{cccc} (1x & & 4x & 1) \\ & \searrow & \nearrow & \\ & 60x & & \\ & \searrow & \nearrow & \\ & & 15x & \end{array}$$

$$(1x - 3)(4x - 5) = 4x^2 - 17x + 15$$

Diagram showing the expansion of  $(1x - 3)(4x - 5)$  with terms  $-12x$  and  $-5x$  circled and combined to  $-17x$ .

★  $(1x - 3)(4x - 5) = 4x^2 - 5x - 12x + 15$

$$\boxed{4x^2 - 17x + 15}$$

$$\begin{array}{cccc} (1x - 3) & & (4x - 5) \\ & \searrow & \nearrow \\ & -12x & & \\ & \searrow & \nearrow & \\ & & -5x & \end{array}$$

4	60	15
$\frac{4}{1 \cdot 4}$		$\frac{15}{1 \cdot 15}$
$2 \cdot 2$	$3 \cdot 5$	