



Activity/Lesson:

PRIOR KNOWLEDGE

*have*



Activity/Lesson continued

You Try 1:

Factor  $x^2 - 19x + 60$  completely. Use guess and check with an area model and algebraically.

Product	Sum
— —	— —

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<hr/> $x^2 - 19x + 60$  <table border="1" style="margin: auto;"><tr><td style="width: 50px; height: 50px;"></td><td style="width: 50px; height: 50px;"></td></tr><tr><td style="width: 50px; height: 50px;"></td><td style="width: 50px; height: 50px;"></td></tr></table>					<hr/> $x^2 - 19x + 60$

Activity/Lesson continued

Activity/Lesson continued

USING THE MIDDLE TERM TO GUESS MORE EFFECTIVELY

You Try 3:

$x^2 \quad 61x \quad 60$ $x \quad x$	$x^2 \quad 61x \quad 60$ $x \quad x$	$x^2 \quad 59x \quad 60$ $x \quad x$	$x^2 \quad 59x \quad 60$ $x \quad x$
$x^2 \quad 32x \quad 60$ $x \quad x$	$x^2 \quad 32x \quad 60$ $x \quad x$	$x^2 \quad 28x \quad 60$ $x \quad x$	$x^2 \quad 28x \quad 60$ $x \quad x$
$x^2 \quad 23x \quad 60$ $x \quad x$	$x^2 \quad 23x \quad 60$ $x \quad x$	$x^2 \quad 17x \quad 60$ $x \quad x$	
$x^2 \quad 19x \quad 60$ $x \quad x$	$x^2 \quad 19x \quad 60$ $x \quad x$	$x^2 \quad 11x \quad 60$ $x \quad x$	$x^2 \quad 11x \quad 60$ $x \quad x$
$x^2 \quad 17x \quad 60$ $x \quad x$	$x^2 \quad 17x \quad 60$ $x \quad x$	$x^2 \quad 7x \quad 60$ $x \quad x$	$x^2 \quad 7x \quad 60$ $x \quad x$
$x^2 \quad 16x \quad 60$ $x \quad x$	$x^2 \quad 16x \quad 60$ $x \quad x$	$x^2 \quad 4x \quad 60$ $x \quad x$	

$$x^2 \qquad a \qquad 60$$

Assessment

$$x^2 - 5x + 24$$

Guess & Check

Area Model

Algebraically

# HANDOUT

Factor the following 24 expressions. Be ready to discuss how we know the signs of the binomials and how the middle term of the trinomial helps you decide which factors of 60 to use.

$x^2 - 61x + 60$ $x \quad x$	$x^2 - 61x + 60$ $x \quad x$	$x^2 - 59x + 60$ $x \quad x$	$x^2 - 59x + 60$ $x \quad x$
$x^2 - 32x + 60$ $x \quad x$	$x^2 - 32x + 60$ $x \quad x$	$x^2 - 28x + 60$ $x \quad x$	$x^2 - 28x + 60$ $x \quad x$
$x^2 - 23x + 60$ $x \quad x$	$x^2 - 23x + 60$ $x \quad x$	$x^2 - 17x + 60$ $x \quad x$	
$x^2 - 19x + 60$ $x \quad x$	$x^2 - 19x + 60$ $x \quad x$	$x^2 - 11x + 60$ $x \quad x$	$x^2 - 11x + 60$ $x \quad x$
$x^2 - 17x + 60$ $x \quad x$	$x^2 - 17x + 60$ $x \quad x$	$x^2 - 7x + 60$ $x \quad x$	$x^2 - 7x + 60$ $x \quad x$
$x^2 - 16x + 60$ $x \quad x$	$x^2 - 16x + 60$ $x \quad x$	$x^2 - 4x + 60$ $x \quad x$	