

Are You Ready? Possible Solutions

1. To factor a number means to express the number as a product.

2. a. $60 = 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60$

$72 = 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72$

The GCF of 60 and 72 is 12.

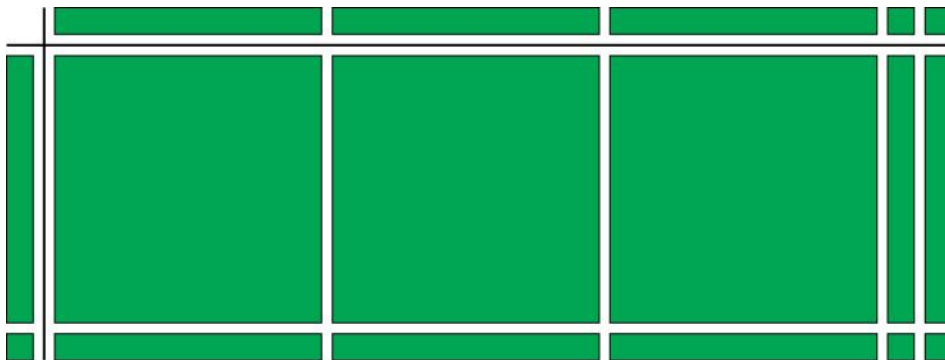
b. $60 = 2 \times 2 \times 3 \times 5$

$72 = 2 \times 2 \times 2 \times 3 \times 3$

Since both 60 and 72 have $2 \times 2 \times 3$ in common, their greatest common factor is

$2 \times 2 \times 3 = 12$.

3. a. The algebra tiles show a product of $3x^2 + 5x + 2$.



b. This shows the area method.

	$3x$	2
x	$3x^2$	$2x$
1	$3x$	2

The answer is $3x^2 + 5x + 2$.

c. $(3x + 2)(x + 1) = 3x(x + 1) + 2(x + 1)$

$$= 3x^2 + 3x + 2x + 2$$

$$= 3x^2 + 5x + 2$$

4. $x = 3$

$(3x + 2)(x + 1)$	$3x^2 + 5x + 2$
$= 3(3) + 2 \cdot 3 + 1$ $= (11)(4)$ $= 44$	$= 3(3)^2 + 5(3) + 2$ $= 27 + 15 + 2$ $= 44$
Left Side = Right Side	