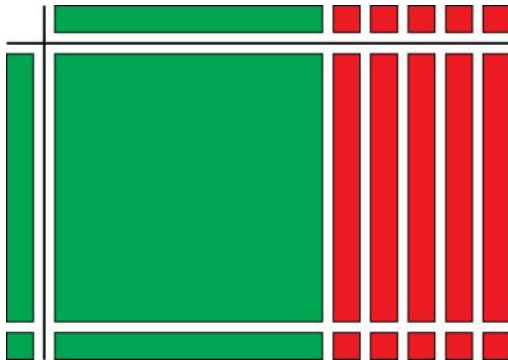
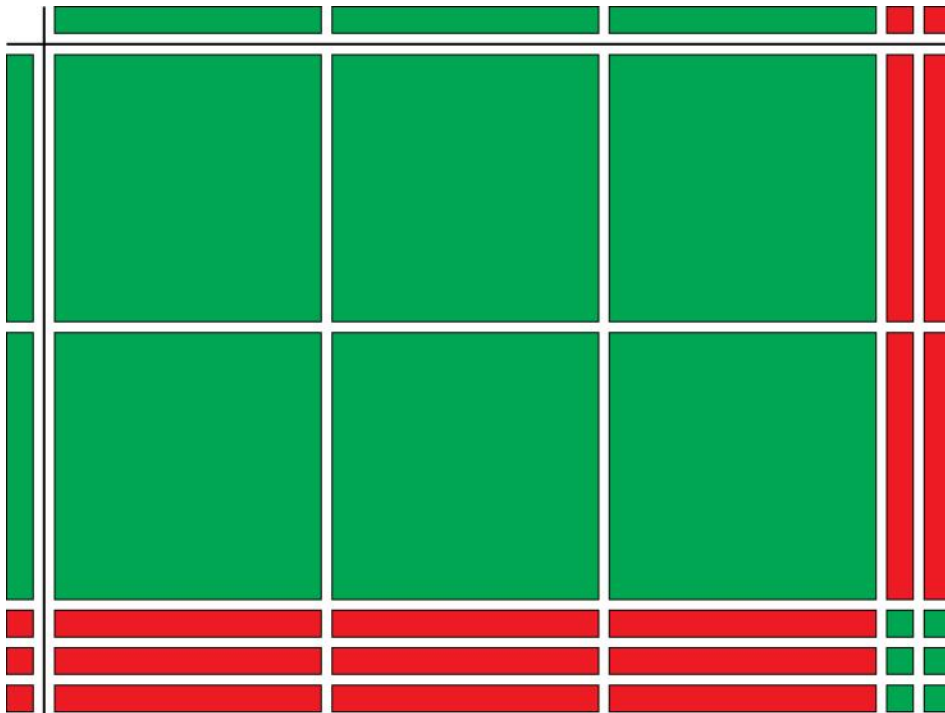


Are You Ready? Possible Solutions

1. a. This shows an illustration of algebra tiles arranged to show a product of $x^2 - 4x - 5$.



- b. This shows an illustration of algebra tiles arranged to show a product of $6x^2 - 13x + 6$.



2. a. $(x + 1)(x - 5) = x(x - 5) + 1(x - 5)$
 $= x^2 - 5x + x - 5$
 $= x^2 - 4x - 5$
- b. $(3x - 2)(2x - 3) = 3x(2x - 3) - 2(2x - 3)$
 $= 6x^2 - 9x - 4x + 6$
 $= 6x^2 - 13x + 6$

3. a. $2x^2 + 6x - 5x - 15 = 2x^2 + x - 15$

b. Collect like terms first.

$$\begin{aligned} 7 + 8x - x^2 - 11x + 3x^2 - 10 &= -x^2 + 3x^2 + 8x - 11x + 7 - 10 \\ &= 2x^2 - 3x - 3 \end{aligned}$$

4. a. $\begin{aligned} 4x^2 - 8x + 3 &= 4(2)^2 - 8(2) + 3 \\ &= 16 - 16 + 3 \\ &= 3 \end{aligned}$

b. $\begin{aligned} (2x - 3)(2x - 1) &= 2(2) - 3 \quad 2(2) - 1 \\ &= (4 - 3)(4 - 1) \\ &= 1 \times 3 \\ &= 3 \end{aligned}$