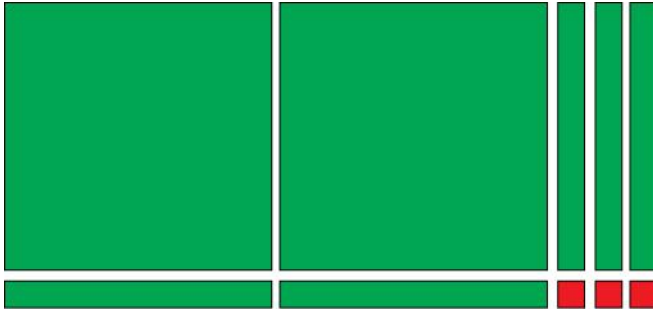


Module 3 Lesson 4

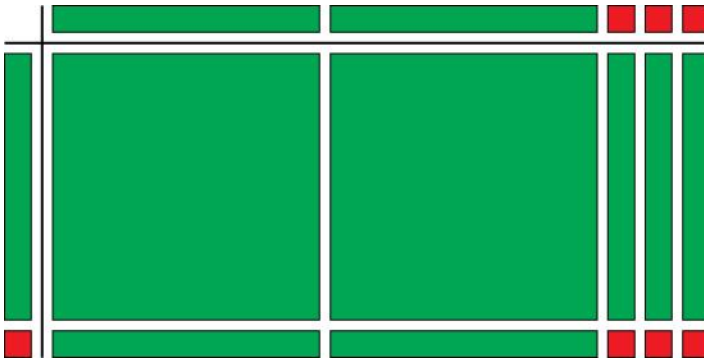
Try This 1 Possible Solutions

1.a) $2x^2 + 5x + 3$

Arrange the two x^2 -tiles, five x -tiles, and three 1-tiles in a rectangle.



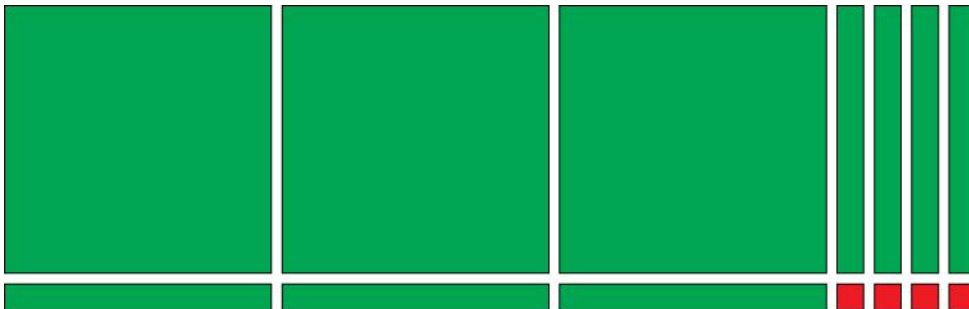
Then add tiles to show the dimensions. The dimensions are the factors.



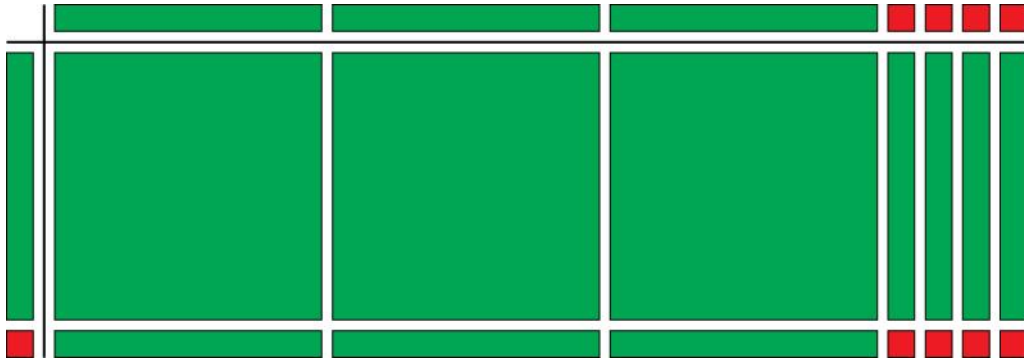
The dimensions are $(x + 1)(2x + 3)$.

b) $3x^2 + 7x + 4$

Arrange the three x^2 -tiles, seven x -tiles, and four 1-tiles in a rectangle.



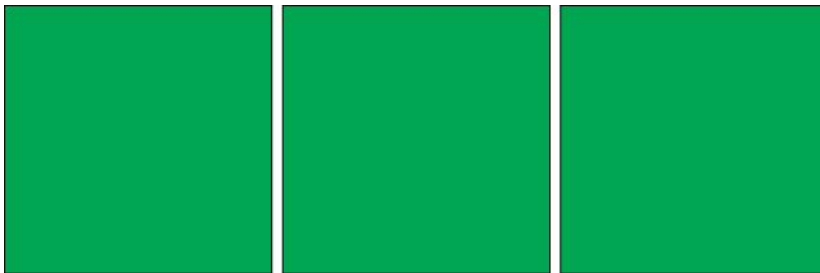
Then add tiles to show the dimensions. The dimensions are the factors.



The dimensions are $(x + 1) (3x + 4)$

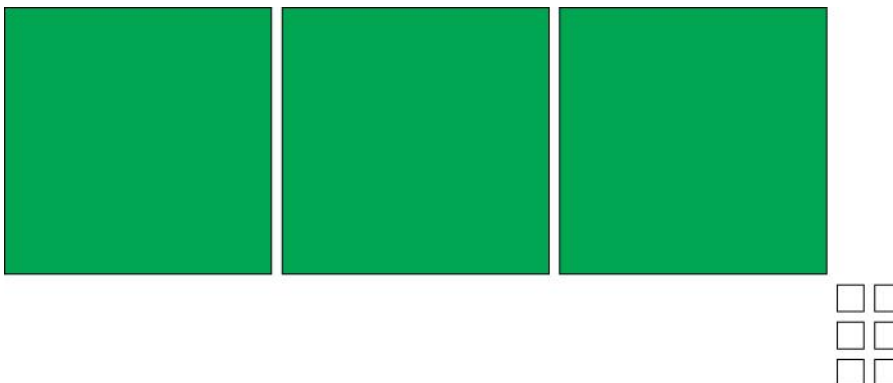
c) $3x^2 + 7x - 6$

First, place the three x^2 -tiles to start the rectangle.

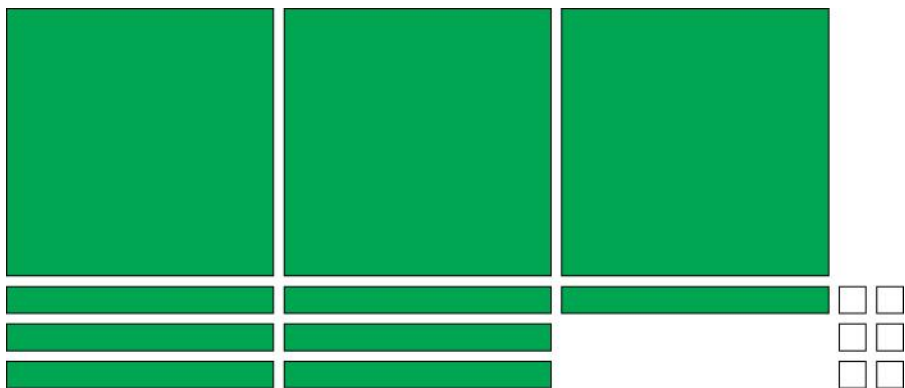


Next, think of the numbers that multiply to the constant. (In this case, it would be either 1×6 or 2×3 .)

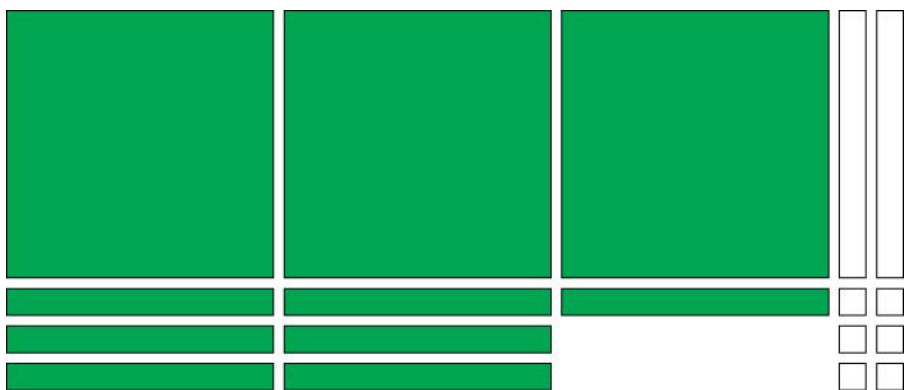
Arrange the negative 1-tiles to form a rectangle with those dimensions. Since 1-tiles and the x^2 -tiles cannot be lined up side by side, arrange them with opposite corners touching (e.g., like a checkerboard).



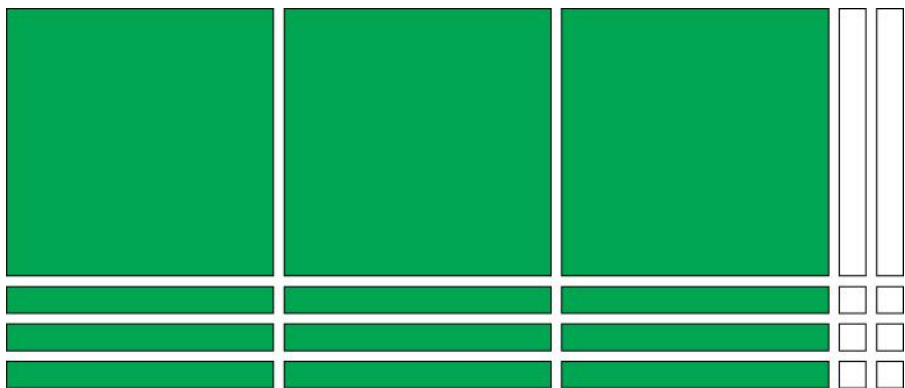
The 1-tiles are negative, so that means that the factors would need to be a positive number and a negative number. There are seven positive x -tiles, so they would have to be horizontally placed below the x^2 -tiles.



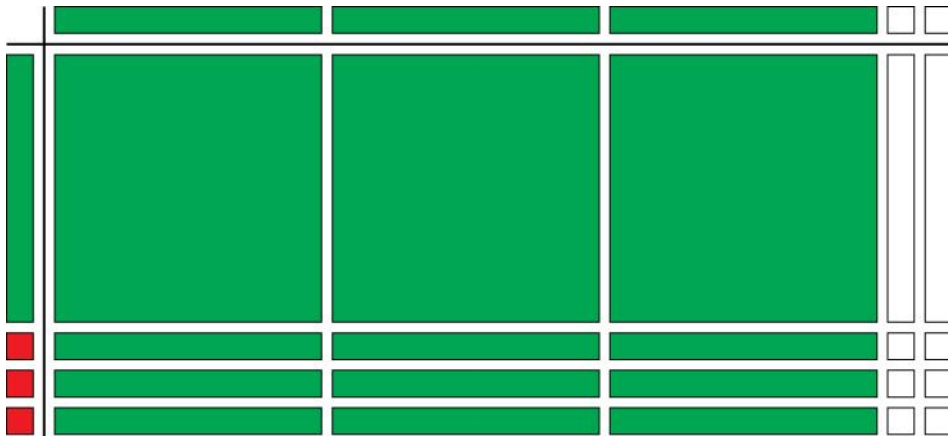
In order to get -6 , two negative x -tiles would need to be placed vertically above the 1 -tiles.



Add two positive x -tiles to the seven x -tiles to complete the rectangle.



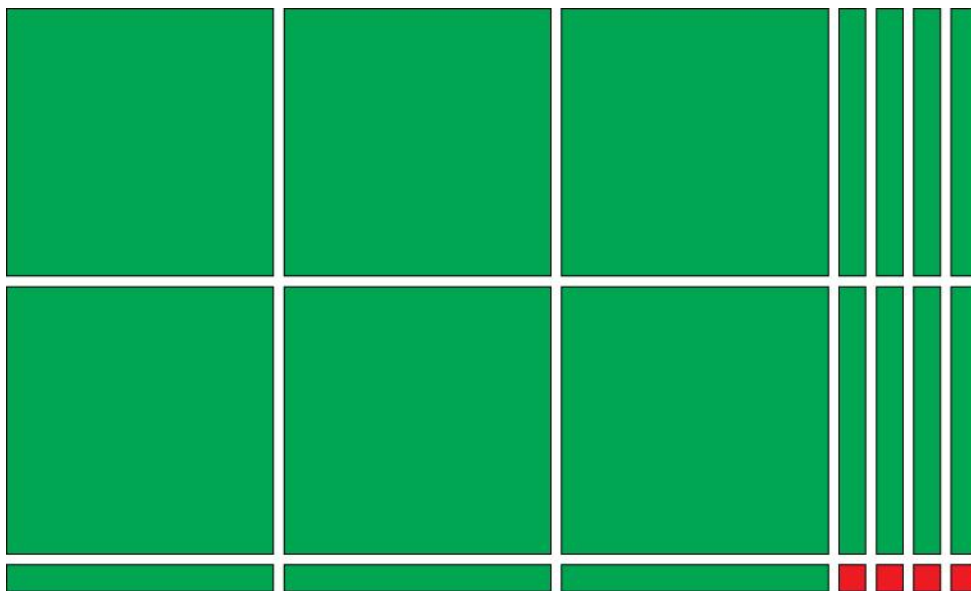
Then place tiles along the top and sides to get the dimensions.



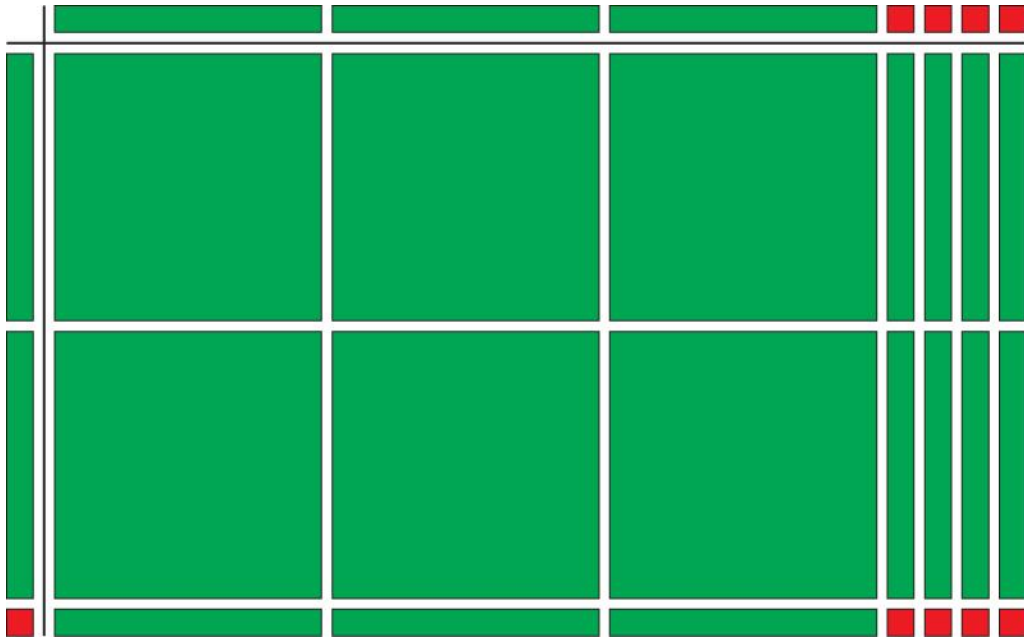
The dimensions are the factors. The dimensions are $(x + 3)(3x - 2)$.

d) $6x^2 + 11x + 4$

Arrange the six x^2 -tiles, eleven x -tiles, and four 1-tiles in a rectangle.



Then add tiles to show the dimensions. The dimensions are the factors.



The dimensions are $(2x + 1)(3x + 4)$