Unit 2 Discussion Example – Post 2: Reply to Another Classmate

Hi Classmate. I will factor your trinomial area into two binomials.

$x^2 + 15x + 26$ square feet

First, there is no greatest common factor to simplify the trinomial. I noticed that the leading coefficient is 1 ($1x^2$). So, I can look for pairs of factors that when multiplied = 26.

(1)(26) = 26

(-1)(-26) = 26

(2)(13) = 26

(-2)(-13) = 26

The magic combo is the pair that when added equal the middle coefficient. Which pairs add up to 15?

1+ 26 = 27

-1 + -26 = -27

2 + 13 = 15

-2 + -13 = -15

I will use the magic combo in the binomial format (x+ ___)(x + __).

The factored form is then

$x^2 + 15x + 26 = (x + 2)(x + 13)$