

Given the Box, factor back into the two binomials

1. Find GCF of the top row first. \rightarrow

?	?
$20c^2$	$-15c$
?	-12

 $= (\quad)(\quad)$

2.

?	?
$16a^2$	$-40a$
?	$+35$

 $= (\quad)(\quad)$

3.

?	?
$4m^2$	$+18m$
?	$+81$

 $= (\quad)(\quad)$

4.

?	?
$36g^2$	$-30g$
?	-25

 $= (\quad)(\quad)$

A quadratic in Standard Form:

$$ax^2 + bx + c$$

a is the coefficient of the squared term also called the quadratic term

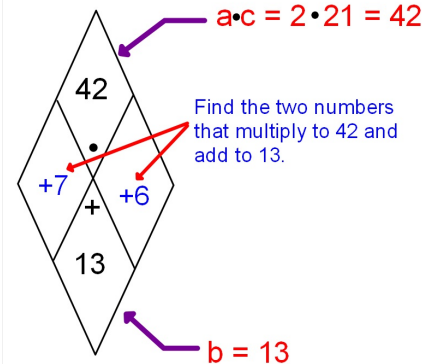
b is the coefficient of the linear term

c is the constant

Factor into 2 binomials.

$$2a^2 + 13a + 21$$

FIRST: use the diamond



SECOND: Put the first term ($2a^2$) in the upper left corner and the constant ($+21$) in the lower right corner. Fill in the other two boxes with the results from the diamond. Make sure you include the variable. ($+7a$, $+6a$)

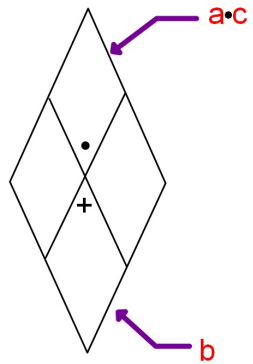
$2a^2$	$+7a$
$+6a$	$+21$

THIRD: Factor using the Box. Rewrite the results using parentheses.

$2a$	$+7$
a	$2a^2$
$+3$	$+6a$
$+21$	$+7a$

 $= (2a + 7)(a + 3)$

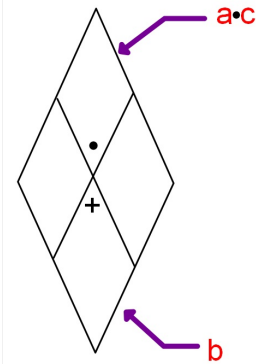
factor $4b^2 - 25b + 25$



$4b^2$	
	$+25$

$= (\quad)(\quad)$

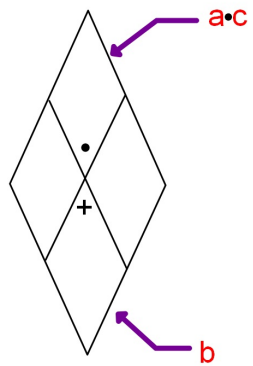
factor $x^2 + 5x - 24$



x^2	
	-24

$= (\quad)(\quad)$

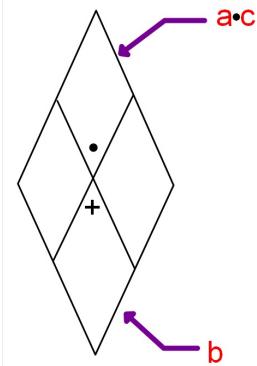
factor $12m^2 - 16m - 3$



$12m^2$	
	-3

$= (\quad)(\quad)$

factor $30b^2 + 17b + 2$



$30b^2$	
	$+2$

$= (\quad)(\quad)$