Factor: $x^2 + 5x - 24$ (Step #5, 6 & 7)

Step #5:

x^2	$8x$
$-3x$	-24

Step #6:

	x	8
x	x^2	$8x$
-3	$-3x$	-24

Step #7: Therefore, $x^2 + 5x - 24 = (x + 8)(x - 3)$