



Expand and simplify

$$(3x - 1)(2x + 3)(x - 7)$$

Solve  $x^2 - 8x - 33 > 0$

$$(x - 11)(x + 3) = 0$$

$$x = 11 \text{ or } x = -3$$

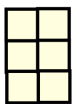
$$x > -3$$

$$x > 11$$

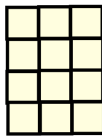
Can you spot any mistakes?

Solve  $x^2 - 3x - 21 < 0$

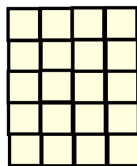
Pattern 1



Pattern 2



Pattern 3



Find the number of tiles in pattern n

There are  $n$  counters in a bag.  
 Three counters are white and the rest are green.  
 Two counters are taken from the bag at random.

Find the probability, in terms of  $n$ , that both counters are green.