### 10th March

**Expand and simplify**

\[(3x - 1)(2x + 3)(x - 7)\]

**Solve** \(x^2 - 8x - 33 > 0\)

\[(x - 11)(x + 3) = 0\]

\[x = 11 \quad \text{or} \quad x = -3\]

\[x > -3\]

\[x > 11\]

**Solve** \(x^2 - 3x - 21 < 0\)

Can you spot any mistakes?

**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.

<table>
<thead>
<tr>
<th>Pattern 1</th>
<th>Pattern 2</th>
<th>Pattern 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Pattern 1" /></td>
<td><img src="image2.png" alt="Pattern 2" /></td>
<td><img src="image3.png" alt="Pattern 3" /></td>
</tr>
</tbody>
</table>

Find the number of tiles in pattern n for each.