**BOX PLOTS**

Below are the heights in inches of a particular math class.

<table>
<thead>
<tr>
<th>Heights of girls (in inches)</th>
<th>Heights of boys (in inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65, 66, 68, 61, 62, 69, 63, 69, 68, 64</td>
<td>66, 66, 68, 69, 69, 69, 71, 72, 73, 74, 73, 74</td>
</tr>
</tbody>
</table>

**PART A:** Find the mean, median and mode for the height of the boys:

- Mean: 69.7
- Median: 69
- Mode: 69

**PART A:** Draw a box plot for the height of boys in the math class on the number line below.

- Min: 66
- Lower quartile: 68
- Median: 69
- Upper quartile: 72
- Max: 74

**PART B:** What is the interquartile range for the height of the boys?

- Interquartile range: 72 - 68

**PART C:** What is the height of the tallest girl in the class?

- 69 in

**PART D:** Explain, in context of the question, what a height of 68 inches for a girl represents.

- 68 in is the upper quartile, which is the 75th percentile. 75% of the girls are smaller than 68 in.
PERIMETER
The quadrilateral below has a perimeter of 72 feet. What is the length of each side of the figure? (Set up an equation and solve it).

\[34 + 17 + 4x + 5 = 72\]

\[4x + 56 = 72\]

\[-56 \quad -56\]

\[4x = 16\]

\[\frac{4x}{4} \quad \frac{16}{4}\]

\[x = 4\]

TRIANGLES
Could the measures indicated in the diagram actually create a triangle? Explain your answer.

8 feet
30 feet

22 feet

No, 8 + 22 is not greater than 30