

**PROBLEM-OF-THE-DAY: ALGEBRA 1**

**WEEK:** December 3 to December 7

**DAY:** Thursday

**RISD Objective:** Given a set of data, students will be able to construct a bar graph, line graph, circle graph, box-and-whiskers plot, or stem-and-leaf plot which represents the data.

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**PROBLEM #71**

Construct a box-and-whiskers plot for the given information.

A box-and whiskers-plot is helpful in interpreting the distribution of data.

A box-and-whiskers plot should include:

Median, lower quartile, upper quartile, and two extremes.

Math tests scores: 75, 80, 65, 60, 85, 90, 80, 100, 80, 85, 95, and 70.

MODEL SOLUTION #71

First, make sure you the data in ascending order.

60, 65, 70, 75, 80, 80, 80, 85, 85, 90, 95, 100

Now, find the median

60, 65, 70, 75, 80, 80, 80, 85, 85, 90, 95, 100

$\frac{70 + 75}{2} = 72.5$	$\frac{80 + 80}{2} = 80$	$\frac{85 + 90}{2} = 88.5$
<b>Lower Quartile</b>	<b>Median</b>	<b>Upper Quartile</b>
<b>Extreme</b>		<b>Extreme</b>

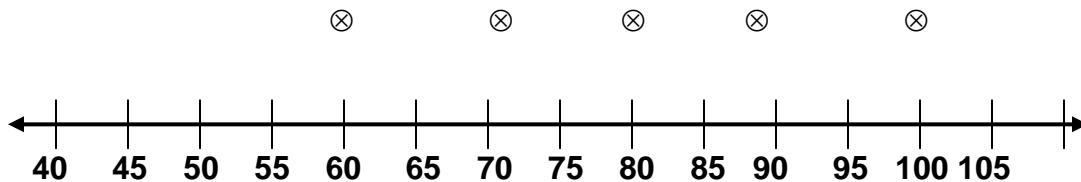
**Median = 80**

**Lower quartile = 72.5**

**Upper quartile = 88.5**

**Extremes = 60, 100**

Now, place a circle above each of these values on a number line.



Then, draw the box and whiskers.

