Name: _____ Hour: _____

Where do I stand?

How does my height compare with other AP Stats students?

The dotplot below represents a random sample of the heights of 20 AP Stats students to the nearest inch.

n	mean	SD	min	Q_1	med	Q_3	max
20	67.45	4.807	56	65.5	67.5	70	78
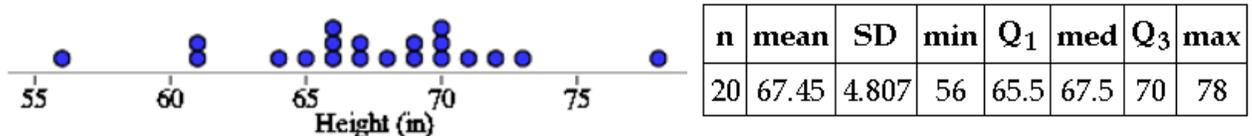
1. Describe the distribution.

2. a. Arianna is 65 inches tall. What percent of the heights are less than or equal to 65?

   b. What is your height? _____ What percent of the heights are less than or equal to your height?

3. Complete the table.

Height	Frequency	Relative Frequency	Cumulative Relative Freq.
56-60			
61-65			
66-70			
71-75			
76-80			

4. Use the info in the table to create a **cumulative relative frequency** graph.

Cumulative Relative Frequency
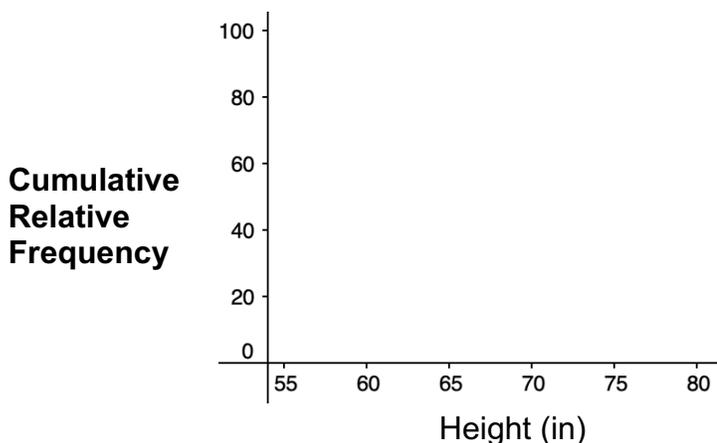
a. Mrs. Gallas is 66 inches tall. Estimate and interpret the percentile she is at using the graph.

b. Estimate and interpret the 80th percentile.

Height (in)

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Describing Location in a Distribution

Important Ideas:

Check Your Understanding:

1. According to a 2019 article at Insider.com, the state of Pennsylvania was at the 82nd percentile for Pre-K to 12th grade education and was at the 0th percentile for higher education. Explain what these values mean.

2. The graph displays the cumulative relative frequency of the cost of in-state public college education for each of the 50 states.
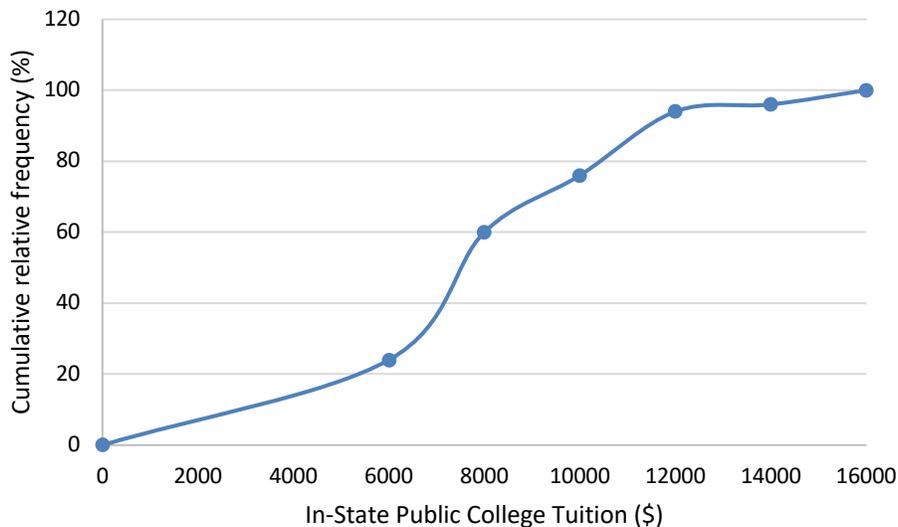
a. About what percent of states have in-state public college tuition less than or equal to $8000? More than $8000?

b. Estimate Q_1, Q_3, and the *IQR* of the distribution of phone in-state public tuition.

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