

Challenge

Agenian Ages

The fictional planet Agenia has nine different countries. A census was taken to determine the average age of the population in each country. This chart shows the results.

Age Statistics of People in Countries of Planet Agenia									
	Ionia	Triandia	Quadonia	Pentonia	Hexonia	Septenia	Octognia	Novembia	Centenia
Mean	65	75	52	47	65	59	50	21	55
Median	72	56	47	33	75	70	52	29	42
Mode	60	45	25	19	55	85	48	35	57
Range	1-92	1-100	1-88	1-65	1-99	1-99	1-98	1-50	1-72

Use the data in the chart to answer each question.

1. Which country has the highest mean age? lowest mean age?

2. Which country has the highest median age? lowest median age?

3. Which country has the highest mode? lowest mode?

4. Which country has the widest range? narrowest range?

5. Which measure would you use to best describe the age of the population for each country?

Why? _____

6. **Connect It** What could be causing the differences between the statistics in a single country? For example, why could a country have a very low mode while also having a high median? Answer on a separate sheet of paper.

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Use the data in the chart to answer each question.

1. Which country has the highest mean age? lowest mean age?

highest: Triandia, 75; lowest: Novembia, 21

2. Which country has the highest median age? lowest median age?

highest: Hexonia, 75; lowest: Novembia, 29

3. Which country has the highest mode? lowest mode?

highest: Septenia, 85; lowest: Pentonia, 19

4. Which country has the widest range? narrowest range?

highest: Triandia, 1-100; lowest: Novembia, 1-50

5. Which measure would you use to best describe the age of the population for each country?

Why? **Answers may vary. Sample answer: Median;**

It is the middle number so half the population

will be above that number and half below.

6. **Connect It** What could be causing the differences between the statistics in a single country? For example, why could a country have a very low mode while also having a high median? Answer on a separate sheet of paper.

Answers may vary. Check students' answers.