

Evaluate a statistical claim in the media

NAME	DATE	SCORE / 10
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1 A juice company asked 300 visitors to its own website which juice they like best. A bar graph on the site shows that 70% chose its juice. The headline says, “Most people like our juice best.” What was the sample?

- ☐ The visitors to the company's website who answered ☐ A bar graph
☐ The percent who chose the company's juice ☐ Everyone who drinks juice

2 A news site asked 40 people at a gym how many hours they exercise each week. A dot plot shows a mean of 6 hours. The headline says, “People in this town exercise 6 hours a week.” What was the sample?

- ☐ The mean hours of exercise each week ☐ Everyone in the town
☐ The people at the gym who were asked ☐ A dot plot

3 A news site asked 60 people at a gym how many hours they exercise each week. A dot plot shows a mean of 7 hours. The headline says, “People in this town exercise 7 hours a week.” Which is a reason the headline may not follow from the data?

- ☐ A dot plot cannot show hours
☐ People at a gym likely exercise more than others in the town
☐ A mean cannot be a whole number ☐ The site should have asked fewer people

4 A juice company asked 300 visitors to its own website which juice they like best. A bar graph on the site shows that 75% chose its juice. The headline says, “Most people like our juice best.” Which is a reason the headline may not follow from the data?

- ☐ A percent cannot describe what people like
☐ People who visit the company's website may like its juice more than others do
☐ A bar graph cannot show percents ☐ The poll should have asked fewer people

5 A school recorded the test scores of 60 students. A bar graph shows that the mean score of students who eat breakfast is higher. The headline says, “Breakfast makes students smarter.” What was the sample?

- ☐ A bar graph ☐ The mean test score ☐ The students whose scores were recorded
☐ All students everywhere

6 A school recorded the test scores of 40 students. A bar graph shows that the mean score of students who eat breakfast is higher. The headline says, “Breakfast makes students smarter.” Which is a reason the headline may not follow from the data?

- ☐ The data show an association, not that breakfast causes higher scores
☐ A mean cannot be used for test scores ☐ The school should have recorded fewer students
☐ A bar graph cannot compare two groups

7 A town asked 80 drivers on one street how long their trip to work takes. A line graph shows the mean time rose from 18 to 20 minutes, with its scale starting at 17. The headline says, “Trips to work are now far longer.” Which is a reason the headline may not follow from the data?

- ☐ The scale does not start at 0, so a small rise looks large
☐ The town should have asked fewer drivers ☐ A line graph cannot show time
☐ A mean cannot be used for trip times

8 A juice company asked 200 visitors to its own website which juice they like best. A bar graph on the site shows that 85% chose its juice. The headline says, “Most people like our juice best.” What measure does the report use?

- ☐ The percent who chose the company's juice ☐ Everyone who drinks juice
☐ The visitors to the company's website who answered ☐ A bar graph

9 A school recorded the test scores of 60 students. A bar graph shows that the mean score of students who eat breakfast is higher. The headline says, “Breakfast makes students smarter.” What measure does the report use?

- ☐ All students everywhere ☐ A bar graph ☐ The students whose scores were recorded
☐ The mean test score

10

A news site asked 40 people at a gym how many hours they exercise each week. A dot plot shows a mean of 8 hours. The headline says, “People in this town exercise 8 hours a week.” What measure does the report use?

- ☐ The mean hours of exercise each week ☐ The people at the gym who were asked
☐ Everyone in the town ☐ A dot plot

Evaluate a statistical claim in the media

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| <p>1 The visitors to the company's website who answered</p> | <p>2 The people at the gym who were asked</p> |
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| <p>3 People at a gym likely exercise more than others in the town</p> | <p>4 People who visit the company's website may like its juice more than others do</p> |
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| <p>5 The students whose scores were recorded</p> | <p>6 The data show an association, not that breakfast causes higher scores</p> |
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| <p>7 The scale does not start at 0, so a small rise looks large</p> | <p>8 The percent who chose the company's juice</p> |
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| <p>9 The mean test score</p> | <p>10 The mean hours of exercise each week</p> |
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