## Student Activity: To examine how a pie chart works.

Use in conjunction with the interactive file "Pie Chart" on the Student's CD.

| Italy | France | Portugal | Spain | Other |
| :---: | :---: | :---: | :---: | :---: |
| 10 | 23 | 14 | 15 | 18 |



1. What is the most popular country for school trips, among the group of teenagers interviewed? Explain why you say it is this country.
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$\qquad$
2. What is the least popular country for school trips among the group of teenagers interviewed? Explain why you say it is this country.
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$\qquad$
$\qquad$
3. Explain how the percentage 17.5 was calculated for Portugal in the pie chart.
4. Calculate the angle corresponding to France in the pie chart.
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$\qquad$
5. Record the current percentage shown on the interactive file for each country in the table below.

| Table A | Italy | France | Portugal | Spain | Other |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Original <br> Percentage |  |  |  |  |  |

Now change the data in the table in the interactive file to the following:

| Italy | France | Portugal | Spain | Other |
| :--- | :--- | :--- | :--- | :--- |
| 20 | 46 | 28 | 30 | 36 |

Now complete the following table:

| Table B | Italy | France | Portugal | Spain | Other |
| :--- | :--- | :--- | :--- | :--- | :--- |
| New <br> Percentage |  |  |  |  |  |

By comparing the Original Percentage in Table A with the New Percentage in Table B, state what was the effect on the pie chart of changing the data? Explain your answer.
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6. What is the total percentage represented in the pie chart? Change the figures in the data table and check what the total percentage represented in the pie chart is now. Do you notice any pattern? Explain your answer.
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7. If all the students in the sample said they preferred France, draw the pie chart.
8. What happens to the pie chart if when Norway is introduced as an option, the number of students preferring to go to each of the named countries still remains the same and none choose Norway?
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9. A different class was surveyed. This class had visited France last year on a school trip. What effect might this have on the data and pie chart? Explain your answer.
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10. Design the question that the students could have been asked to provide the data supplied in the interactive file.
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