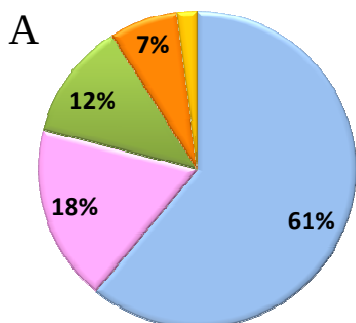




1. Let's learn how to talk about pie charts.

A. **Pie charts** show a percentage. Pie chart A is for an English language school in the US. It shows what percentage of students come from Asia, from Europe, etc.

Where do the students come from?



■ Asia ■ Europe ■ South America
■ Central America ■ Africa

Useful expressions for pie charts

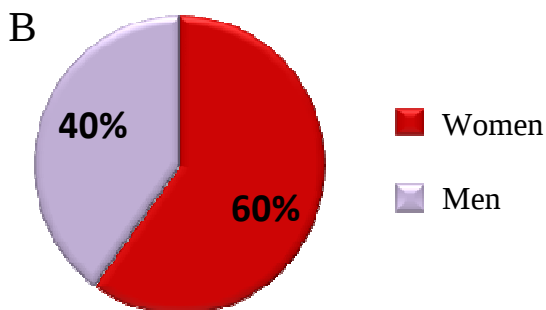
1. 12 **percent of** students are from ~.
2. *More **than** fifty percent of the* students **are** from ~.
3. **The pink area shows the percentage of** students from ~.
4. **According to the chart, what percentage of** students **are** from Central America? ~ **percent**.

Question 1: What percentage of students are from Africa? a. 8 percent. b. 2 percent.

Question 2: If there are 1,000 students in the school, how many are from Asia? _____

B. **Pie charts** can also show a ratio. Pie chart B shows the ratio of women to men at the language school. It is 3 to 2.

Gender

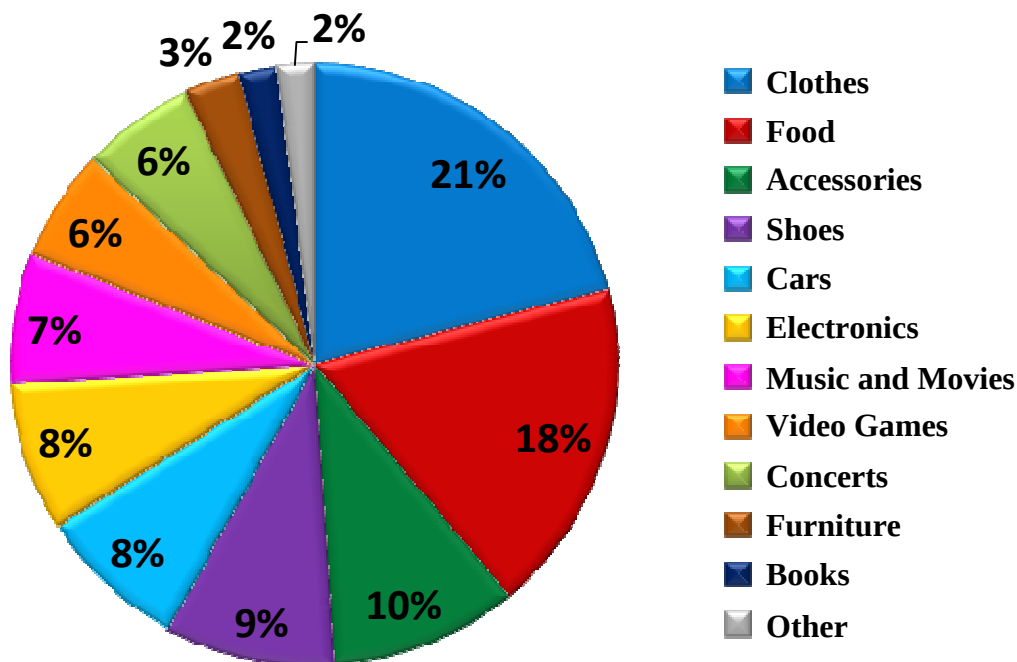


Useful expressions for pie charts

1. **The ratio of women to men** is 3 to 2.
2. *Less **than** fifty percent of the* students **are** ~.
3. **According to the chart, what is the ratio of men to women? It's ~ to ~.**

Question 3: If there are 1000 students in the school, how many are women?

2. The pie chart below shows how American high school students spend their money. After looking at the chart carefully, answer the questions.



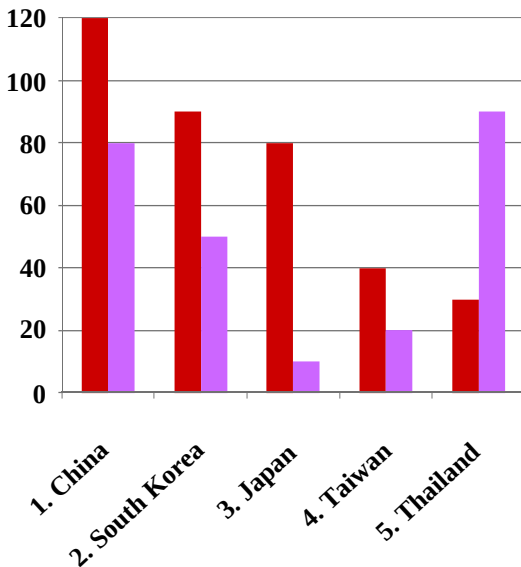
Source: Piper Jaffray, 2014

- According to the chart, American high school students spend almost half of their money on _____, _____, and _____.
- The yellow area shows the percentage of money spent on _____
- In the chart, which color can show the percentage of money spent on karate lessons, travel, etc.? _____
- The chart suggests that American high school students...
 - don't care about clothes.
 - aren't so interested in reading.
 - don't spend money on entertainment.
- According to the chart, American high school students spend 30 percent of their money on _____ and _____
- According to the chart, what is the ratio of accessories to books?
It's _____

3. Next, let's look at graphs.

A. **Bar graphs** are used to compare numbers between two or more things. The bar graph below shows the number of Asian women and men at the language school and where they come from.

■ women ■ men (total = 610 Asian students)



Useful expressions for bar graphs

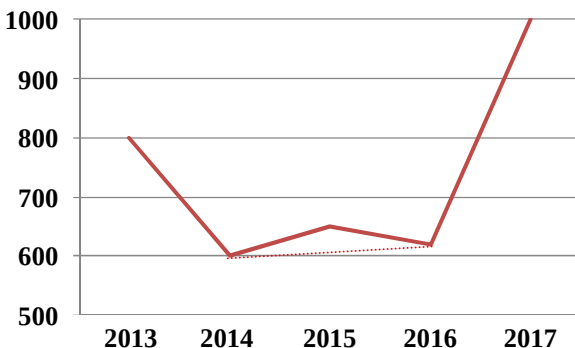
~ is	(much) (a little / slightly) (three times)	higher lower	than...
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At the language school,

1. the number of Japanese ~ **is much higher than** the number of Japanese ~.
2. the number of Japanese ~ **is slightly lower than** the number of South Korean ~.
3. the number of Thai ~ **is three times higher than** the number of Thai ~.

Question 1: Compare the number of Chinese men and Japanese men at the school.

B. **Line graphs** can be used to show changes over time. The line graph below shows the number of students at the language school from 2013 to 2017.



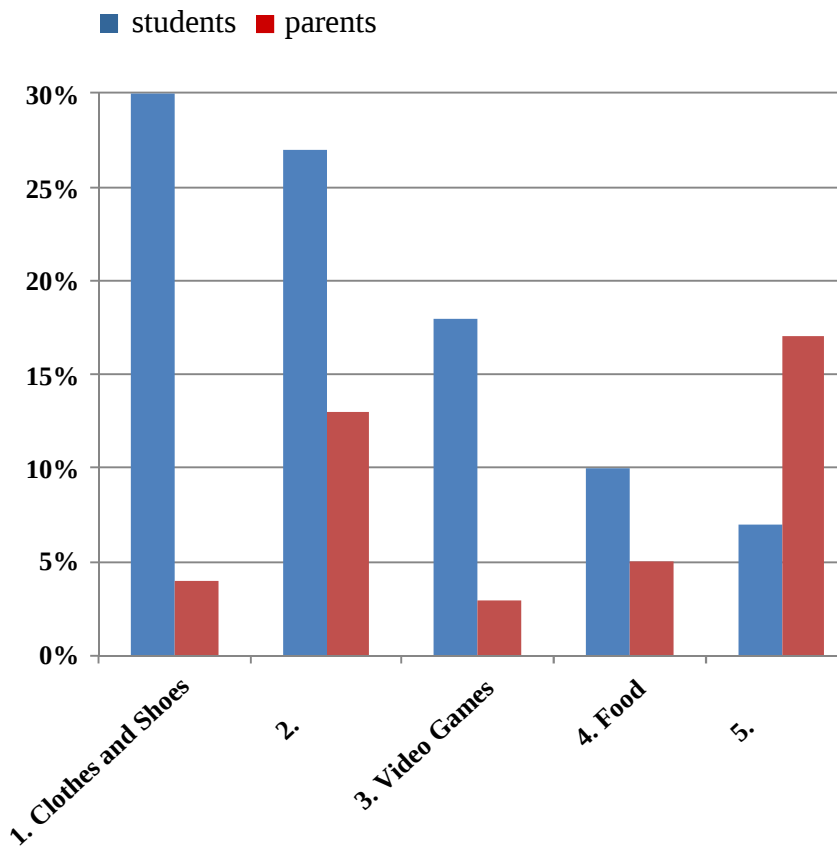
Useful expressions for bar graphs

The number of students...

1. **decreased sharply** from 2013 to 2014.
2. **increased gradually** from 2014 to 2015.
3. **decreased slightly** from 2015 to 2016.
4. **increased quickly** from 2016 to 2017.

Question 2: What happened from 2014 to 2016? The number of students...

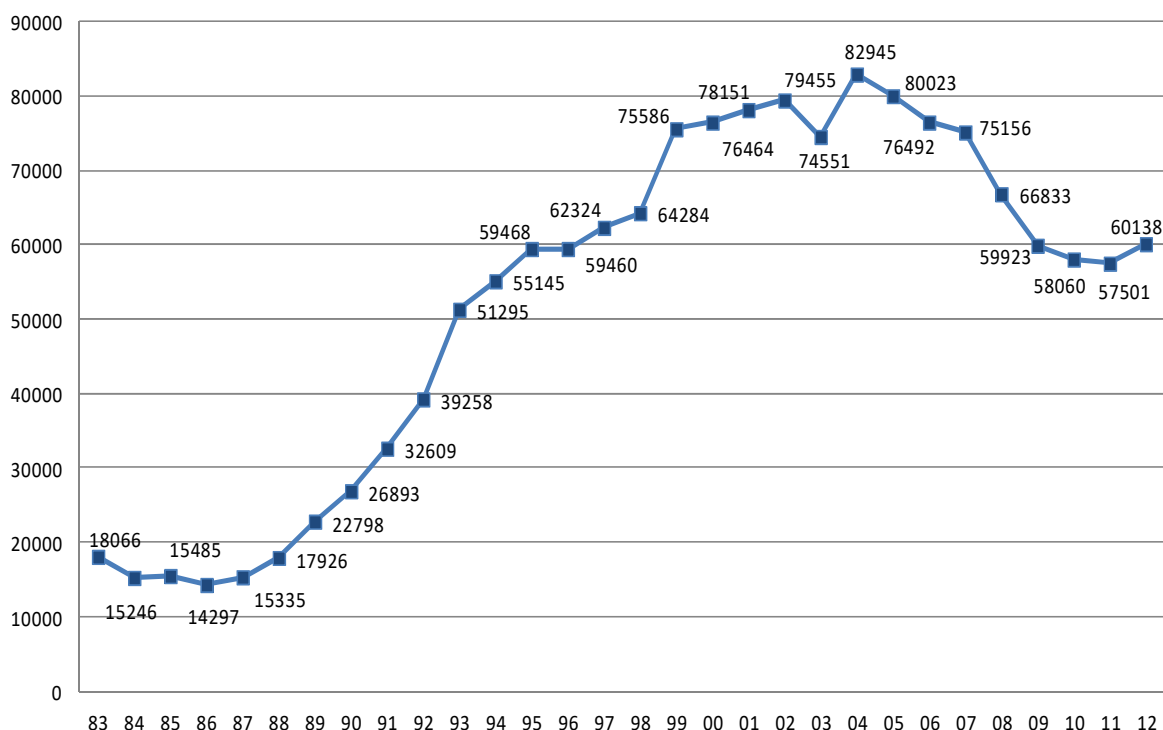
4. The bar graph below compares how American high school students and their parents spend money. After looking at the graph carefully, fill the blanks.



Source: Derek Thomson, 2013

- The percentage of money spent on clothes and shoes by students is _____ that spent by parents.
- The percentage of money spent on video games by parents is about six _____ that spent by students.
- The percentage of money spent on food by parents is _____ that spent on clothes and shoes (by parents).
- The percentage of money spent on cars by parents is higher than that spent by students. Which bar represents this? Bar ____
- The percentage of money spent on entertainment by students is _____ that spent on clothes and shoes (by students).

5. The line graph below shows how many Japanese students studied abroad, from 1983 to 2012. After looking at the data carefully, answer the questions.



Source: UNESCO, OECD

1. From 1985 to 1986, the number of students _____
2. From 1999 to 2002, the number of students _____
3. From 2002 to 2003, the number of students _____
4. From 2003 to 2004, the number of students _____
5. Which statement is true?
 - a. The number of students increased gradually from 1983 to 1988.
 - b. The number of students was much higher in 2001 than in 2000.
 - c. The number of students decreased sharply from 2004 to 2011.
6. The data suggests that...
 - a. more Japanese students studied abroad in the 1980s than in the 1990s.
 - b. studying abroad became less popular in Japan in the 2000s (two thousands).
 - c. Compared to 30 years ago, Japanese students are less interested in studying abroad.