

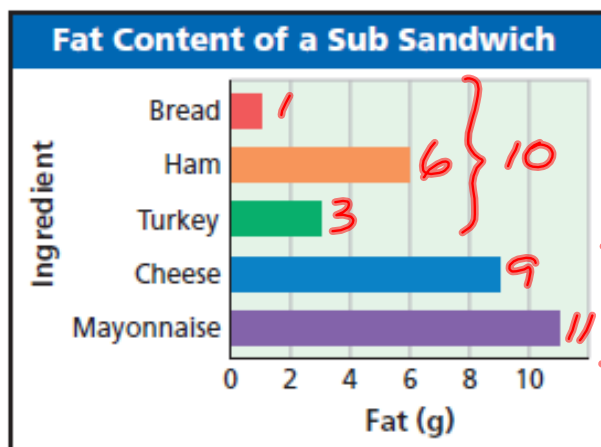
0-1 Organizing and Displaying Data

S.ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).

Bar graph, line graph and circle graph can be used to present data in a visual way.

A BAR GRAPH displays data with vertical or horizontal bars.

★ Use: When the data can be organized into CATEGORIES.



Handwritten red annotations: A bracket groups Ham (6g) and Turkey (3g) with the number 10. Another bracket groups Cheese (9g) and Mayonnaise (11g) with the number 20. A large bracket on the right groups all ingredients with the number 30g.

1. Which ingredient contains the most fat?

Mayo

2. How many more grams of fat are in ham than in turkey?

$$6 - 3 = 3g$$

3. How many total fat grams are in this sandwich?

30g

4. What percent of the total fat grams in this sandwich are from turkey?

$$\frac{3}{30} = \frac{1}{10} \quad 10\%$$

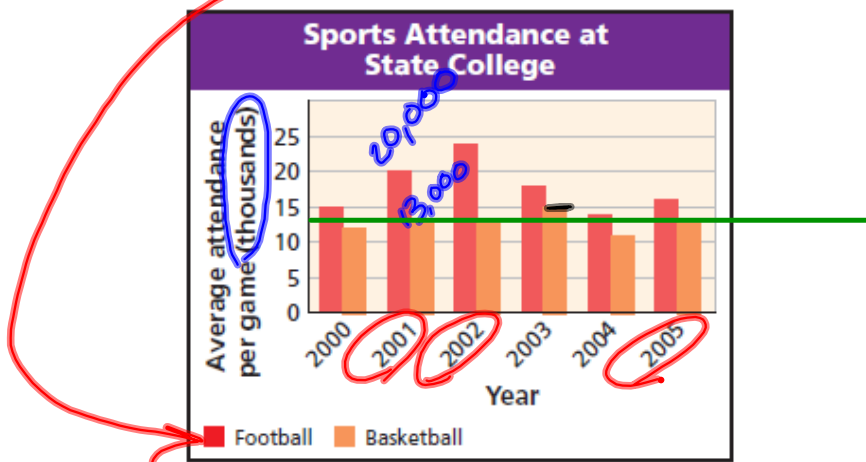
5. Which ingredient contains the least amount of fat?

Bread

6. Which ingredients contain at least 8 grams of fat?

Cheese ^ Mayo

A Double Bar graph can be used to compare 2 data sets. You must show a key to distinguish between the two sets of data.



1. In which year did State College have the greatest average attendance for basketball?

2003

2. On average, how many more people attended a football game than a basketball game in 2001?

$$20,000 - 13,000 = 7,000 \text{ peeps}$$

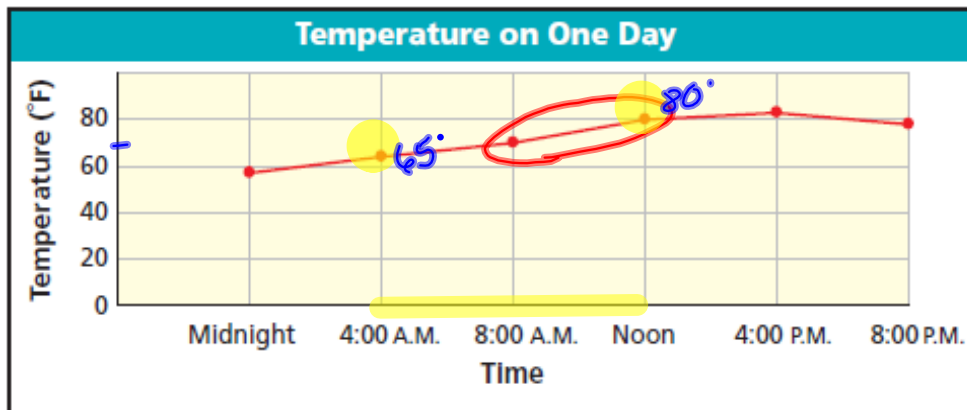
3. Which years had the same average basketball attendance. What was the average attendance for those years?

13,000 peeps

2001, 2002, 2005

A LINE graph displays data using LINE segments.

* USE: When displaying data that CHANGES over a period of time.



1. At what time was the temperature the warmest?

4:00 p.m.

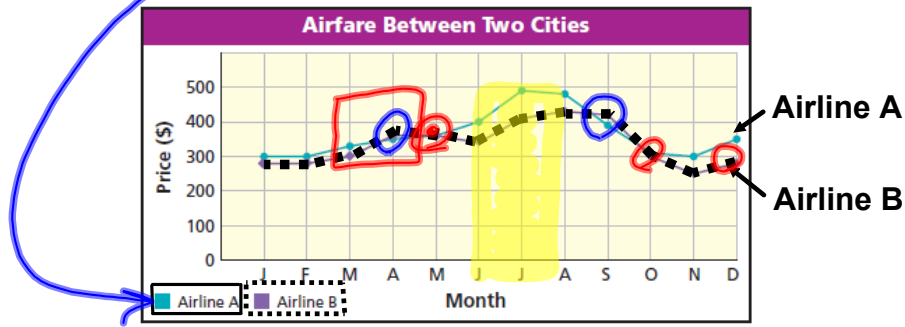
2. During which 4-hour time period did the temperature increase the most?

8:00 a.m. - noon

3. Estimate the difference in temperature between 4:00 a.m. and noon.

$$80 - 65 = 15$$

A Double Line graph can be used to compare how two related data sets change over time. A key must be used to distinguish between the two sets of data.



1. Which month(s) did airline B charge more than airline A?

April & Sept.

2. During which month(s) did the airlines charge the same airfare?

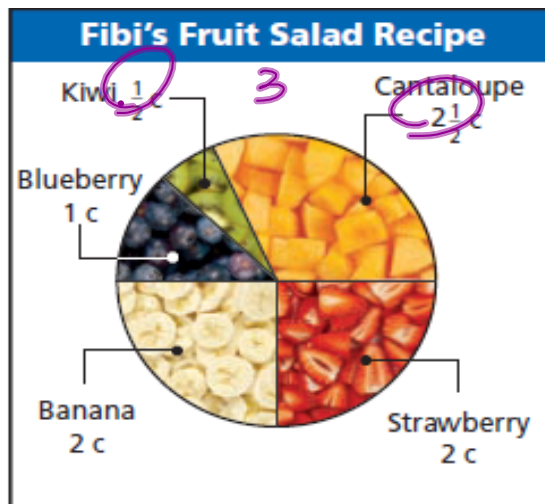
May & Oct.

3. Describe the general trend of the data.

Summer mos. increase (schools out)
Holidays.

A CIRCLE graph shows parts of a WHOLE. The entire circle represents 100% of the data and each sector represents a percent of the total.

USE: When COMPARING each category of data to the whole set.



8 cups

1. Which two fruits together make up half of the fruit salad?

Banana & Strawberry

2. Which fruit is used more than any other?

Cantaloupe

3. Determine what percent of the fruit salad is cantaloupe.

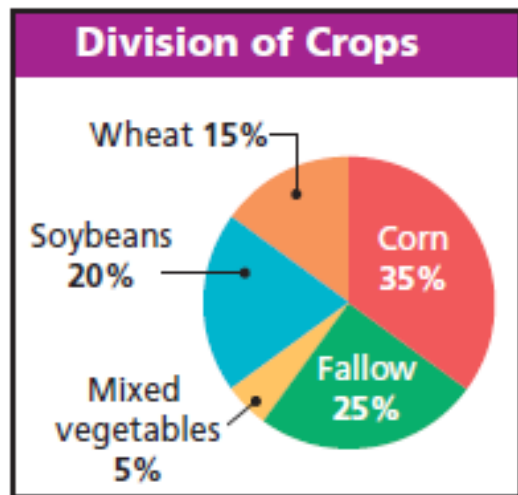
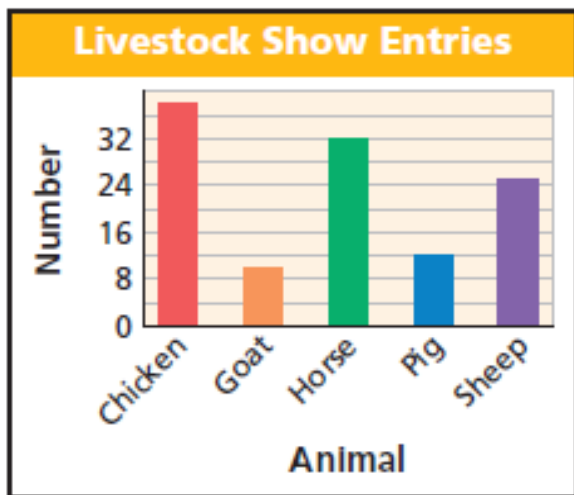
$$\frac{2.5c}{8c} = .3125 = 31.25\%$$

CHOOSE AND CREATE AN APPROPRIATE DISPLAY

Use the given data to make a graph. Explain why you chose that type of graph.

Livestock Show Entries	
Animal	Number
Chicken	38
Goat	10
Horse	32
Pig	12
Sheep	25

Division of Crops	
Crop	Area (acres)
Corn	70
Fallow	50
Mixed vegetables	10
Soybeans	40
Wheat	30



Chinnick College Enrollment	
Year	Students
1930	586
1955	2,361
1980	15,897
2005	21,650

