

Name _____ Date _____ Hour _____

1. TWO-WAY TABLE

How is the hatching of water python eggs influenced by the temperature of the snake’s nest? Researchers randomly assigned newly laid eggs to one of three water temperatures: hot, neutral, or cold. Hot duplicates the extra warmth provided by the mother python, and cold duplicates the absence of the mother. The two way table summarizes the data on whether or not the eggs hatched.

		Water temperature			Total
		Cold	Neutral	Hot	
Hatched?	Yes	16	38	75	129
	No	11	18	29	58
	Total	27	56	104	187

- a. What percent of eggs were randomly assigned to hot water?

- b. What proportion of eggs in the study hatched?

- c. What percent of eggs in the study were randomly assigned to cold or neutral water and hatched?

- d. Of the eggs that hatched, what proportion were randomly assigned to hot water?

- e. Of the eggs that were randomly assigned to hot water, what percent hatched?

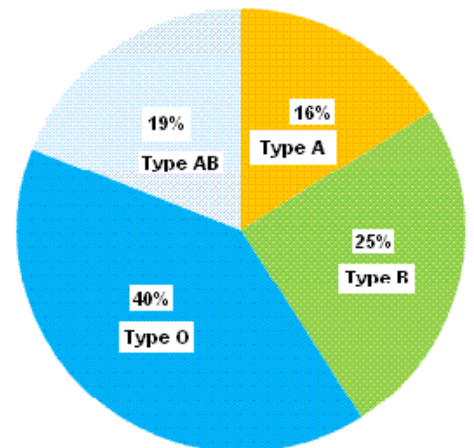
2. PIE CHART

The pie chart shows the percentages of blood types for a group of 200 people.

- a. How many people in this group have blood type AB?

- b. How many people in this group do not have blood type O?

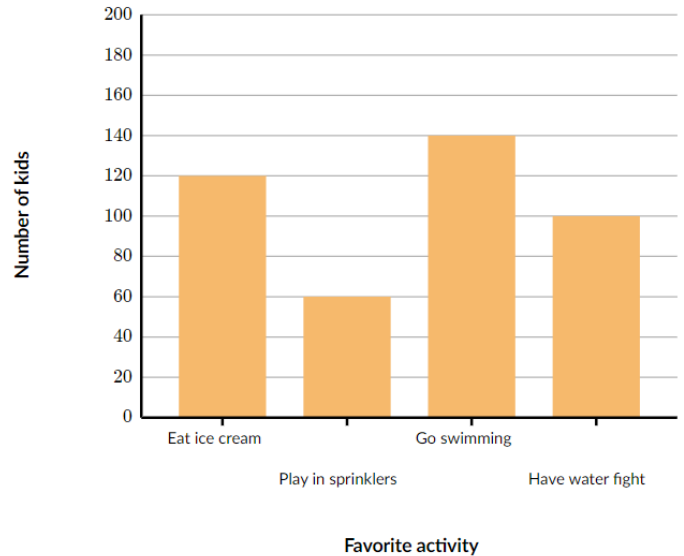
- c. How many people in this group have blood Types A or B?



3. BAR GRAPH

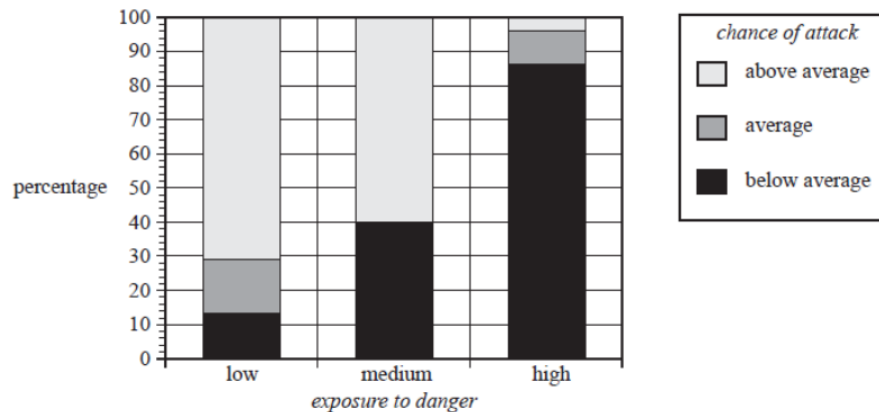
The graph below shows the number of kids that chose each activity as their favorite thing to do on a hot day.

- How many students were surveyed?
- How many students chose a water fight?
- What is the difference between the number of students that chose the most and least popular favorite activity?
- How many students did not choose sprinklers?



4. SEGMENTED BAR GRAPH

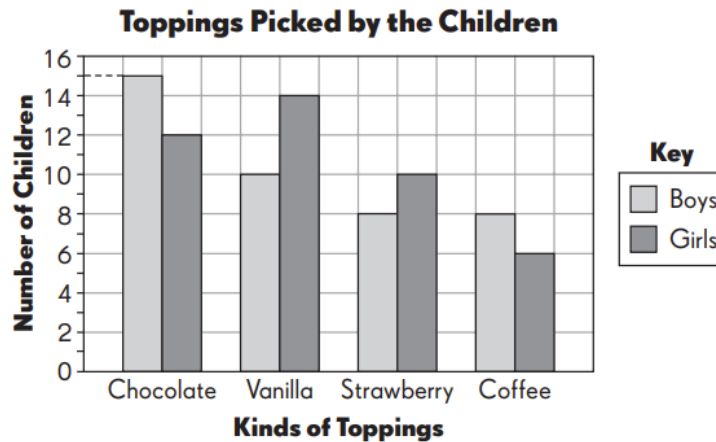
An animal study was conducted to investigate the relationship between exposure to danger during sleep (high, medium, low) and chance of attack (above average, average, below average). The results are summarized in the percentage segmented bar chart below.



- What is the percentage of animals whose exposure to danger during sleep is high and whose chance of attack is below average?
- What is the percentage of animals whose exposure to danger during sleep is low and whose chance of attack is average?
- What is the percentage of animals whose exposure to danger during sleep is medium and whose chance of attack is above average?

5. SIDE-BY-SIDE BAR GRAPH

The side-by-side bar graph shows the different kinds of toppings that children picked for their ice cream at Jazz Café.

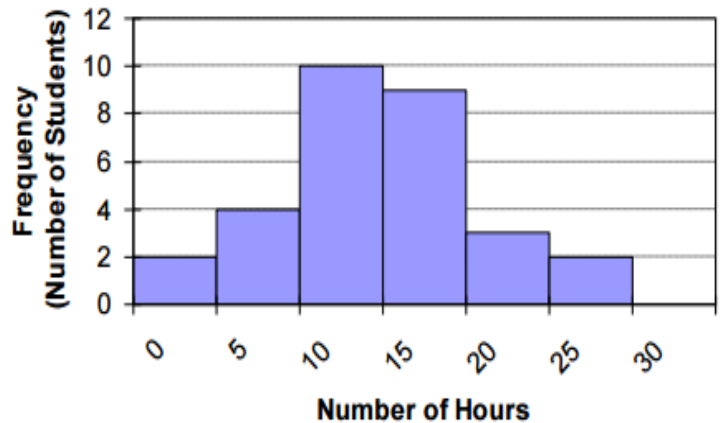


- Which topping is the children's favorite?
 - Which topping is the least popular?
 - How many more children chose the chocolate topping than the coffee topping?
 - How many more girls than boys chose the strawberry topping?
 - What was the favorite and least favorite topping among the girls?
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6. HISTOGRAM

Thirty high school students with after-school or weekend jobs were asked to give the number of hours per week they work. The results of this survey appear below.

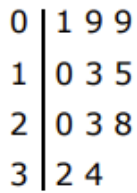
- How many students work at least 15 but fewer than 20 hours per week?
- How many students work less than 10 hours per week?
- How many students work at least 20 hours per week?



- Do you know the maximum number of hours worked? Explain why or why not.

7. STEMPLOT

Zach and his friends went on a weekend fishing trip and recorded the number of fish that each of them caught in the stemplot below.

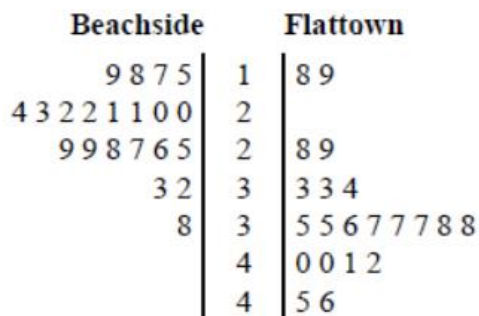


Key: 3 | 2 represents
32 fish caught.

- How many people went fishing?
- What was the least amount of fish caught?
- What was the most amount of fish caught?
- How many people caught more than 20 fish?
- What is the mean amount of fish caught?
- What is the median amount of fish caught?
- What is the mode of the data representing the amount of fish caught?

8. BACK-TO-BACK STEMPLOT

The back-to-back stemplot shows the distribution of temperatures (in degrees Celsius) of two towns, Beachside and Flattown, over 21 days in January.

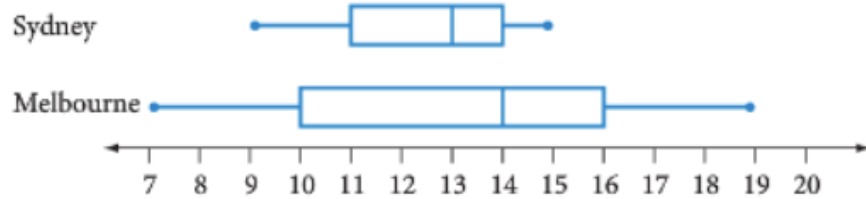


Key: 5 | 1 | 8 represents a temperature of 15 degrees Celsius for Beachside and 18 degrees Celsius for Flattown.

- What was the highest recorded temperature over those 21 days in January in Beachside?
- What was the lowest recorded temperature over those 21 days in January in Flattown?
- What was the range of the temperatures over those 21 days in January in Beachside?
- What was the median temperature in Flattown?
- How many days had temperatures higher than 26 degrees Celsius in Beachside?

9. BOXPLOT

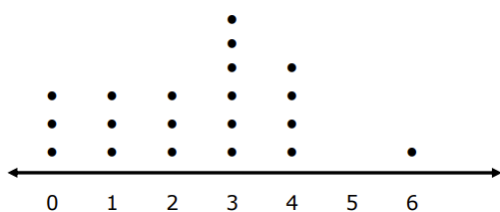
The boxplot shows the number of rainy days per month over two years for both Sydney and Melbourne, Australia.



- Which city has more rainy days per month? How do you know?
- What is the median number of rainy days per month for Sydney? Melbourne?
- What is the lowest number of rainy days per month for Sydney? Melbourne?
- The bottom 50% of Melbourne's number of rainy days per month ranges between what amounts?
- The top 25% of Sydney's number of rainy days per month ranges between what amounts?

10. DOTPLOT

The students in one social studies class were asked how many siblings they each have.



- How many students are in the social studies class?
- How many of the students have six siblings?
- How many of the students have no siblings?
- How many of the students have at least 3 siblings?
- What is the median number of siblings?
- What is the mode of the number of siblings represented?
- What is mean number of siblings represented?
- How many students have no more than 1 sibling?

11. PROBABILITY

A card is randomly selected from a standard deck of 52 cards.

There are 4 suits in a deck with 13 cards in each suit. Face cards are jack, queen, and king.

Find the probability that the ONE card you drew is:

- | | |
|--------------------------------------|--|
| _____ a. A king <i>and</i> a diamond | _____ b. A king <i>or</i> a diamond |
| _____ c. A spade <i>or</i> a club | _____ d. A 4 <i>or</i> a 5 |
| _____ e. A 6 <i>and</i> a face card | _____ f. <i>Not</i> a heart |
| _____ g. A 3 <i>or</i> a red card | _____ h. A king <i>or</i> a queen |
| _____ i. A jack <i>or</i> a nine | _____ j. A face card <i>and</i> a black card |

Two six-sided dice are rolled. Find the probability of the given event.

- | | |
|--|-----------------------------|
| _____ k. The sum is greater than 9. | _____ l. The sum is 6 or 8. |
| _____ m. Rolling a 5 on exactly one die. | _____ n. The sum is not 7. |
| _____ o. The sum is 1. | _____ p. Rolling doubles. |

A bag contains 10 red straws, 15 green straws, and 6 blue straws.

- _____ q. What is the probability of choosing a green and then a red straw, with replacement?
- _____ r. What is the probability of choosing a red straw, then a blue straw, and then a green straw, without replacement?
- _____ s. What is the probability of choosing three red straws, without replacement?

When a player is selected at random from a high school boys' baseball team, the probability that he is a pitcher is 0.35, the probability that he is right-handed is 0.79, and the probability that he is a right-handed pitcher is 0.26. P is the event that a player is a pitcher and R is the event that a player is right-handed.

Find the probability of:

- | | |
|---|---|
| _____ t. Right-handed but not a pitcher | _____ u. Not right-handed nor a pitcher |
| _____ v. A pitcher but not right-handed | _____ w. Not a pitcher |