Pie Chart Worksheet

Statistics and Probability

Grades 6 to 8

Skill Questions

Name: ....

Date: ....

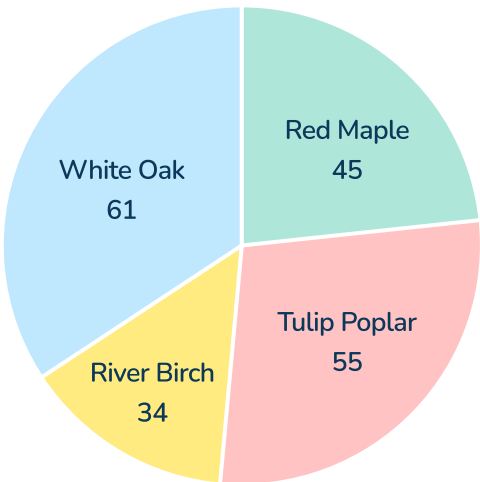**1** Beach Bites surveyed customers on their favorite snack. The pie chart below represents the data. How many more customers prefer ice cream to yogurt?
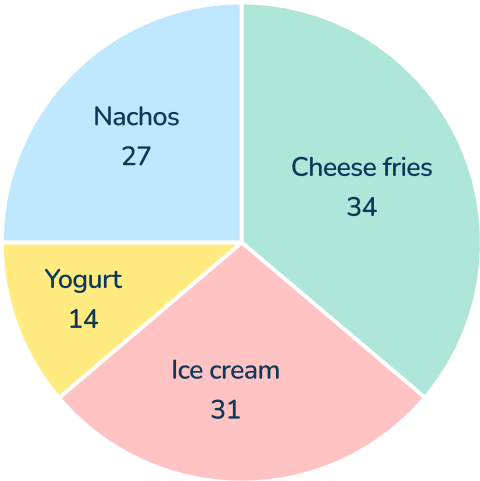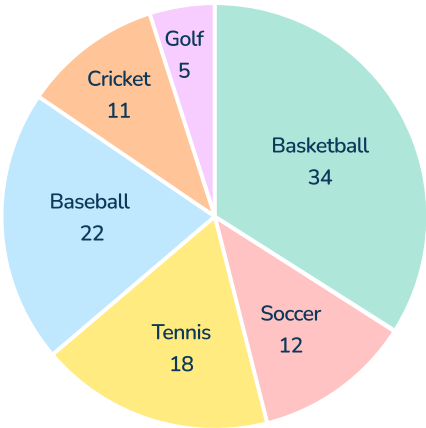

Answer

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2 A park ranger recorded the types of trees found in a park. The pie chart below represents the data. How many of the trees were White Oak and Red Maple?

Answer

3 A group of students were surveyed about their favorite sport to play. The pie chart below represents the data. How many students were surveyed?

Golf
5

Cricket
11

Baseball
22

Basketball
34

Tennis
18

Soccer
12

Answer

4 A group of 6th graders each set one new personal goal. The pie chart below represents the data. If 86 6th graders set a goal, how many had a goal to try new food?

Learn a
new sport
18

Go to bed
earlier
17

Make new
friends
14

Try new food
_____

Be nicer
to brother
8

Read more
books
14

Answer

5 The pie chart shows the animals that were adopted from a pet store in March. If 80 animals were adopted in March, how many of those were cats?

Lizard:
20.0%

Dog:
30.0%

Bird : 5.0%

Fish:
10.0%

Cat:
35.0%
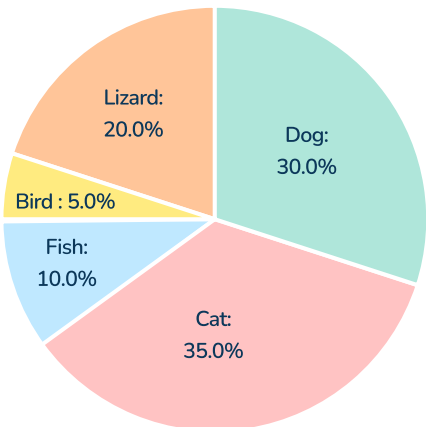
Answer

6 A group of students were surveyed and asked "How do you get to the library from your house?" The pie chart below represents the data. If 60 students said car and they were 40%, how many students were surveyed?
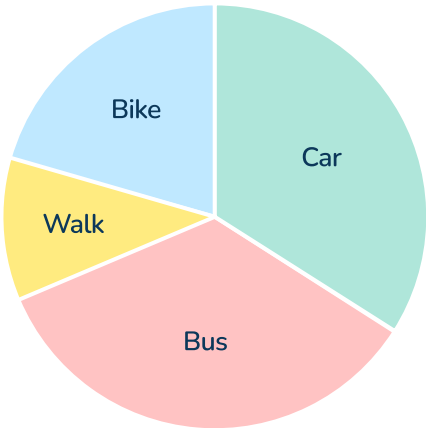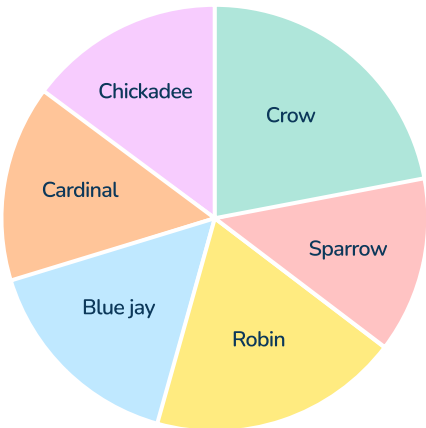

Answer

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7 A statistician surveyed people on their favorite season. The pie chart below represents the data. If 800 people were surveyed, how many chose Spring?
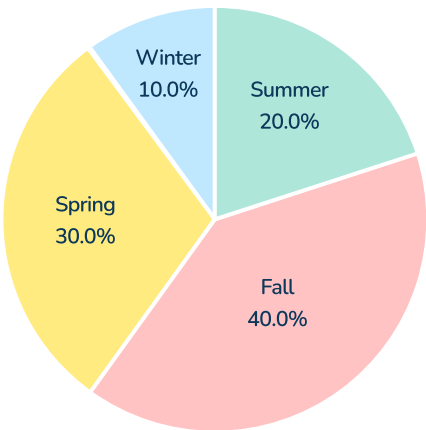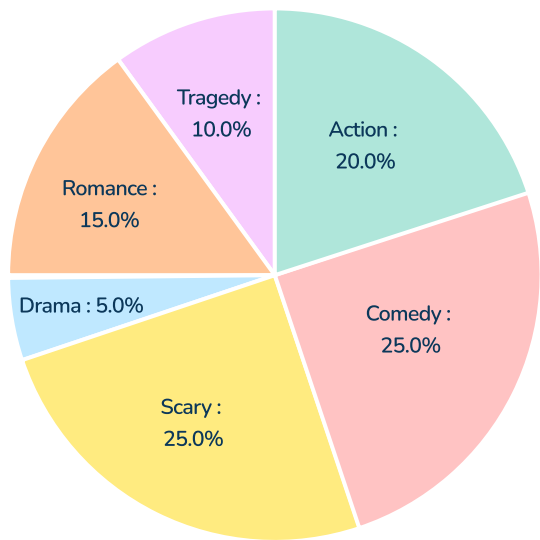

Answer

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8 A birdwatcher counted each time he saw a species of bird. The pie chart below represents the data. If 64 cardinals were counted and they were 16%, how many birds were counted in all?
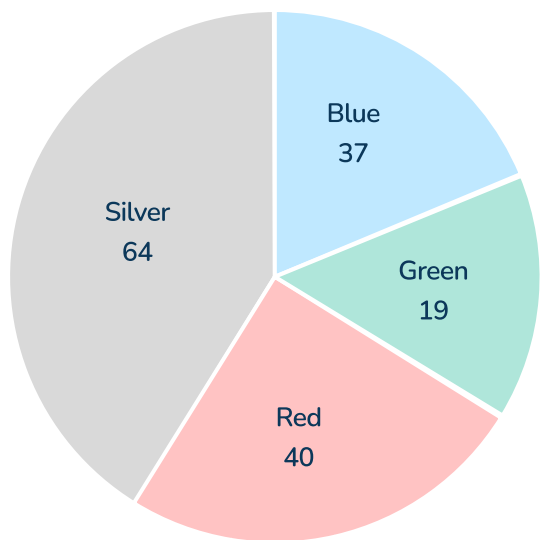

Answer

9 Movie goers were surveyed on their favorite movie genre. The pie chart below represents the data. If 250 people were surveyed, how many chose action?

Answer

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10 A car dealer surveyed customers on which car color they preferred. The pie chart below represents the data. What percent of the customers prefer silver cars?
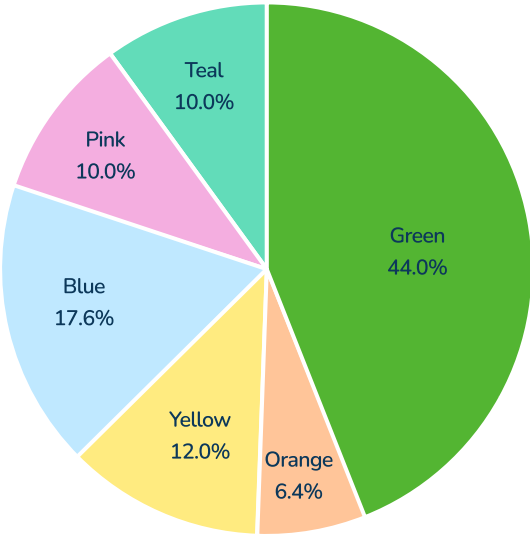

Answer

Applied Questions

11 Draw a pie chart for the following data.

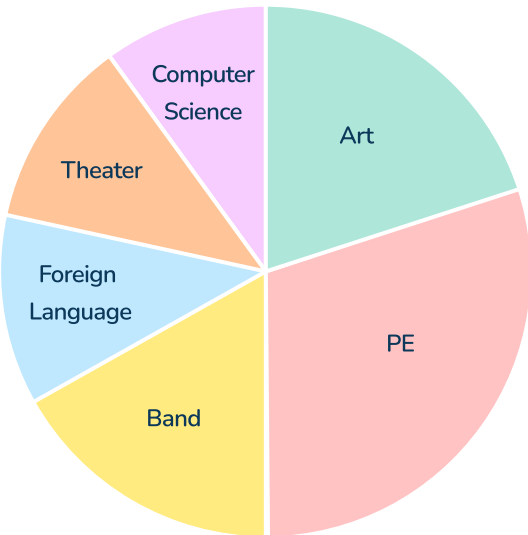| Animal	Total amount
Cow	110
Horse	16
Chicken	30
Pig	44

Answer

12 400 people were surveyed about their favorite color.
How many people said Orange, Blue or Teal?

Answer

13

A class was looking at the pie chart and students made the following statements:

- "Art and band combined are about 25%." – Jordan
- "PE is around 30%." – Ayla
- "Band is about twice as much as theater." – Imani

Decide whether each statement is correct. Explain.

_____

_____

_____

14 Create two possible data sets, with less than 100 data points, that could be represented by the pie chart.
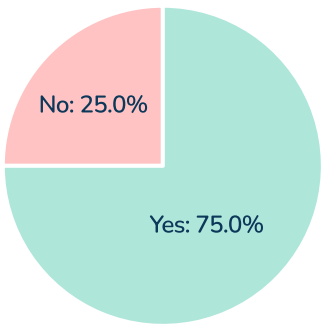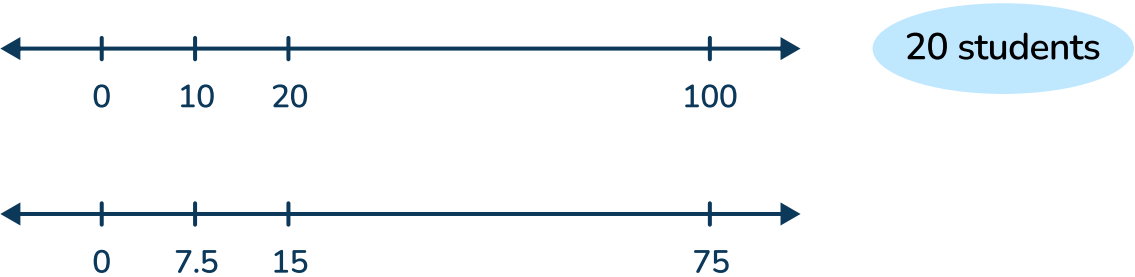

Data set 1:

Yes	
No	

Data set 2:

Yes	
No	

15 What percent of students chose graphic designer as their future career?
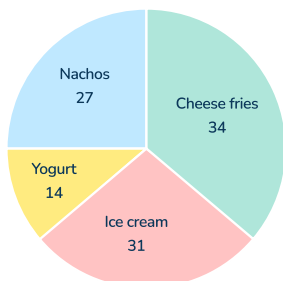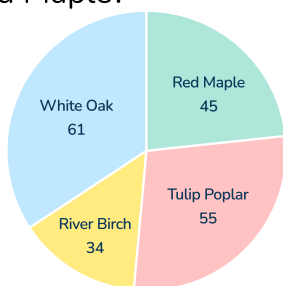
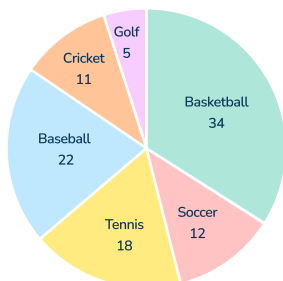| Future Career	No. of Students
Engineer	14
Graphic Designer	20
Social Worker	18
Chef	15
Electrician	8

Sibelly's work:

20 students
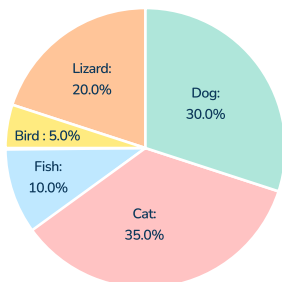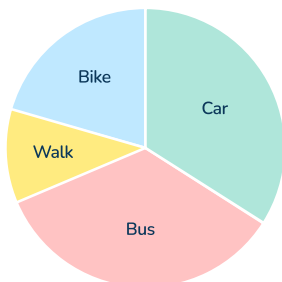
Explain how Sibelly solved. Correct any mistakes.

_____
_____
_____

Answers

Question number	Question	Answers	Standard
1	Beach Bites surveyed customers on their favorite snack. The pie chart below represents the data. How many more customers prefer ice cream to yogurt? Nachos 27, Cheese fries 34, Yogurt 14, Ice cream 31	17 customers	6.RP.3.c
2	A park ranger recorded the types of trees found in a park. The pie chart below represents the data. How many of the trees were White Oak and Red Maple? Red Maple 45, White Oak 61, Tulip Poplar 55, River Birch 34	106 trees	6.RP.3.c
3	A group of students were surveyed about their favorite sport to play. The pie chart below represents the data. How many students were surveyed? Golf 5, Cricket 11, Basketball 34, Baseball 22, Soccer 12, Tennis 18	102 students	6.RP.3.c

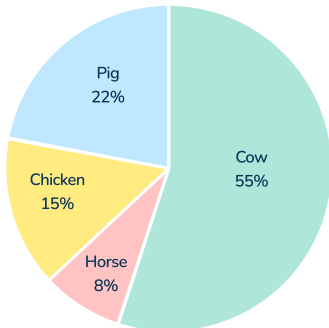| Question number	Question	Answers	Standard
4	A group of 6th graders each set one new personal goal. The pie chart below represents the data. If 86 6th graders set a goal, how many had a goal to try new food? Learn a new sport 18, Go to bed earlier 17, Try new food _____, Make new friends 14, Be nicer to brother 8, Read more books 14	15	6.SP.B.5
5	The pie chart shows the animals that were adopted from a pet store in March. If 80 animals were adopted in March, how many of those were cats? Lizard: 20.0%, Dog: 30.0%, Bird : 5.0%, Fish: 10.0%, Cat: 35.0%	28 cats	6.SP.B.5
6	A group of students were surveyed and asked "How do you get to the library from your house?" The pie chart below represents the data. If 60 students said car and they were 40%, how many students were surveyed? Bike, Car, Walk, Bus	150 students	6.SP.B.5

Pie Chart Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
7	A statistician surveyed people on their favorite season. The pie chart below represents the data. If 800 people were surveyed, how many chose spring?	240 people	6.RP.3.c
8	A birdwatcher counted each time he saw a species of bird. The pie chart below represents the data. If 64 cardinals were counted and they were 16%, how many birds were counted in all?	400 birds	6.RP.3.c
9	Movie goers were surveyed on their favorite movie genre. The pie chart below represents the data. If 250 people were surveyed, how many chose action?	50	6.RP.3.c

Question number	Question	Answers	Standard
10	A car dealer surveyed customers on which car color they preferred. The pie chart below represents the data. What percent of the customers prefer silver cars?	40%	6.RP.3.c
11	Draw a pie chart for the following data. 	Animal	Total amount	 Cow | 110 Horse | 16 Chicken | 30 Pig | 44		6.RP.3.c
12	400 people were surveyed about their favorite color. How many people said Orange, Blue or Teal?	136 people	6.RP.3.c

Question 11 answer table:

Animal	Total	Angle
Cow	110	$\frac{110}{200} \times 360 = 198°$
Horse	16	$\frac{16}{200} \times 360 = 28.8°$
Chicken	30	$\frac{30}{200} \times 360 = 54°$
Pig	44	$\frac{44}{200} \times 360 = 79.2°$

Pie Chart Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
13	A class was looking at the pie chart and students made the following statements: • "Art and band combined are about 25%." – Jordan • "PE is around 30%." – Ayla • "Band is about twice as much as theater." – Imani Decide whether each statement is correct. Explain.	*Explanations will vary.* Example answer: Jordan is incorrect. Both art and band seem to be around 20%, so together they would be close to 40%. Ayla is correct, because it is a little more than $\frac{1}{4}$ of the pie. And Imani is also correct, because the statement matches the size of the pie pieces.	6.RP.3.c
14	Create two possible data sets, with less than 100 data points, that could be represented by the pie chart. Data set 1: 	Yes	
No		 Data set 2: 	Yes	
No			*Answers will vary, but the value for 'Yes' should be 3 times the value for 'No.'* Example answer: | Yes	6
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No	2		6.RP.3.c

Pie Chart Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
15	What percent of students chose graphic designer as their future career? 	*Explanations will vary.* Example answer: Sibelly found the total was 75 students, which would be 100%. Then she set up a double number line and found that 10% was 7.5. So she just doubled that to find 20%. Instead she needed to work out the percentage of 20 out of 75, using the bottom number line to get the percentage on the top. 26.7% (1dp)	6.RP.3.c

Question 15 table

Future Career	No. of Students
Engineer	14
Graphic Designer	20
Social Worker	18
Chef	15
Electrician	8

Sibelly's work:

0   10   20   100   20 students

0   7.5   15   75

Explain how Sibelly solved. Correct any mistakes.

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