Make Frequency Tables



How can you display data in a frequency table?

Frequency is the number of times an event occurs. A frequency table is a table that uses numbers to record data about how often something happens.

Vorle

Real Unlock the Problem

Essential Question

Bart kept a record of the sizes of bags of peanuts he sold at a baseball game.

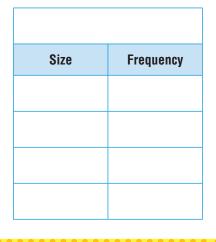
Bags of Peanuts Sold (Sizes)						
М	S	XL	Μ	XL	S	L
S	S	L	XL	XL	L	XL
XL	XL	S	М	L	L	S
S	XL	L	S	XL	М	М

Make a frequency table of the data.

STEP 1: Write the title at the top of the frequency table.

STEP 2: List the sizes of bags of peanuts in the first column.

STEP 3: Record the frequency of each size of bag of peanuts sold in the frequency column.



• If you want to know quickly how many large bags of peanuts Bart sold, would you use his record or would you use the frequency table? **Explain**.

Try This! Make a frequency table.

A librarian records the types of books students checked out one morning. Make a frequency table of the data.

- Write a title for the frequency table.
- List the types of books in the first column.
- Record the frequency of each type of book in the second column.

Books Checked Out					
adventure	mystery	adventure	biography		
adventure	mystery	adventure	biography		
biography	adventure	mystery	adventure		
mystery	adventure	biography	adventure		

Types of Books	Frequency

Share and Show



Len records the methods of transportation his classmates take to school. Use the data for 1–2.

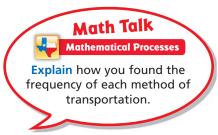
I. What is a good title for a frequency table of the data?

What will be in the first column of the frequency table?

What will be in the second column of the frequency table?

4 2. Make a frequence	v table.
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Transportation to School					
bus	walk	car			
walk	walk	bus			
bus	bus	walk			
car	bus	car			
walk	bus	bus			
bus	car	walk			
car	walk	bus			



Problem Solving

A swimming coach records the events swimmers on a team are competing in. Use the data for 3–4.

- **3.** Make a frequency table of the data. **Explain** how you determine what to put in the first column of the table.
- **4. Multi-Step** How can you prove that the total number of frequencies in your table is correct?

Swimming Events					
freestyle	backstroke	butterfly			
backstroke	breaststroke	freestyle			
freestyle	backstroke	freestyle			
breaststroke	butterfly	backstroke			
backstroke	freestyle	butterfly			
freestyle	backstroke	butterfly			



A restaurant owner recorded salsa flavors that customers asked for at dinner. Use the data for 5–7.

Salsa Flavors									
hot mild chunky hot mild mild spicy hot hot spicy							spicy		
spicy	spicy chunky spicy chunky chunky spicy hot spicy hot hot								hot

- 5. **Representations** Make a frequency table of the data.
- 6. **H.O.T. Describe** how the frequency table will change if 4 customers switch from chunky salsa to spicy salsa and 3 customers switch from mild salsa to hot salsa.

7. Multi-Step Think of a topic for a frequency table. Record a set of data for the topic. Use the data to make a frequency table.

Write Math > Show Your Work •





Daily Assessment Task

Fill in the bubble completely to show your answer.

- **8.** Marsha records the breeds of dogs in a dog show. Then she makes a frequency table to show the data. How many different breeds of dogs will be in the frequency table?
 - **A** 2 **C** 3
 - **B** 12

D 4

Breeds of Dogs					
beagle	pug	bulldog	pug		
beagle	bulldog	poodle	bulldog		
bulldog	poodle	beagle	bulldog		

Students place an order for different sizes of school sweatshirts. They make a frequency table to show the data. Use the frequency table for 9–10.

9. Students order sizes large, small, large, large, medium, small, large, small, large, medium, and small. What frequency should be in the row for medium in the frequency table?

A	5	C 4	
B	2	D 3	

Sweatshirt Order				
Size	Frequency			
Small	?			
Medium	?			
Large	?			

10. Multi-Step Students pay \$14 for size small sweatshirts and \$16 for size large. How much do they pay for the size small and large sweatshirts they order?

\$30

(**D**)

A	\$56		C	\$80

B \$136

TEXAS Test Prep

11. Paula recorded the colors of all her shoes.

Shoe Colors				
blue	black	red	blue	blue
black	blue	white	red	black
red	purple	white	blue	red

She makes a frequency table of the data. What is the frequency of red shoes?

(A) 3
(C) 15
(B) 4
(D) 2

Company
Publishing
Harcourt
Mifflin
Houghton

Homework and Practice



Name

15.1 Make Frequency Tables

Patricia records the types of penguins she sees in the Antarctic exhibit at the zoo. Use the data for 1–2.

1. What is a good title for a frequency table of the data?

What will be in the first column of the frequency table?

What will be in the second column of the frequency

table?

2. Complete the frequency table at the right.

Antarctic Penguins			
King	Chinstrap	Gentoo	
Chinstrap	King	Macaroni	
Rockhopper	Chinstrap	King	
Gentoo	Gentoo	Gentoo	
Macaroni	King	Chinstrap	
Rockhopper	Rockhopper	Chinstrap	

Problem Solving (Real World

Mr. Rexford's students recorded the polygons in a sculpture at the modern art museum. Use the data for 3–4.

3. Complete the frequency table of the data.

Polygons				
triangle	rectangle	hexagon	rectangle	rectangle
hexagon	hexagon	pentagon	hexagon	triangle
hexagon	triangle	pentagon	rectangle	rectangle

4. Which polygon had the greatest frequency? Which polygon had the least frequency?



Lesson Check

Fill in the bubble completely to show your answer.

- 5. Milo records the types of shells he collects on the Texas coast. Then he makes a frequency table to show the data. How many different types of shells will be in the frequency table?
 - (A) 20 (C) 5
 - **B** 4 **D** 3
- 6. Carmen recorded the types of vehicles she saw while looking out the window of her father's car. She makes a frequency table of the data. What is the frequency of motorcycles?
 - (A) 5 (C) 7
 - **B** 6 **D** 3

Josef has a pottery booth at the craft fair. He makes a frequency table to record the types of pottery sold one day. Use the frequency table for 7–8.

Shells Collected			
clam	clam	conch	whelk
cockle	cockle	clam	scallop
cockle	clam	conch	scallop
scallop	cockle	clam	scallop
clam	scallop	whelk	conch

Vehicles			
motorcycle	truck	sports car	
truck	motorcycle	truck	
sports car	motorcycle	SUV	
motorcycle	truck	SUV	
SUV	SUV	sports car	
SUV	truck	motorcycle	
motorcycle	truck	SUV	

Pottery Sold		
Type Frequency		
Bowl	12	
Mug	?	
Plate	5	
Vase	8	

- **7. Multi-Step** The number of mugs Josef sold is one fourth of the combined number of bowls and vases sold. What frequency should be in the row for mug in the frequency table?
 - **A** 3
 - **B** 5
 - **(C)** 2
 - **D** 80

- 8. Multi-Step The price of a plate is \$6 and the price of a mug is \$5. How much did Josef collect from the plates and the mugs he sold?
 - **A** \$55
 - **B** \$25
 - **(C)** \$30
 - **D** \$11