

Classroom activity

Display and Describe Recycling Data

Group Members: _____

Date: _____

Instructions

A city gives residents recycling containers and collects the contents in the containers each week. The city decides to track a sample of 50 residences to see how often they recycle. The results for a one-year period are shown. Use spreadsheet software to create a frequency table using the data in the table.

Key	
Category	Recycling Frequency
Consistently recycles (C)	More than 75% of weeks
Sometimes recycles (S)	From 25% to 75% of weeks
Rarely recycles (R)	Fewer than 25% of weeks

Residence Recycling Data
C, S, C, C, C, S, C, S, C, C, S, C, S, S, R, C, S, C, S, C, C, R, S, S, S, C, C, S, S, R, R, S, S, S, C, S, S, S, R, S, C, S, C, S, S, C, S, S, R, R

A. What is the frequency for each category?

Consistently recycles (C): _____

Sometimes recycles (S): _____

Rarely recycles (R): _____

B. Use spreadsheet software to create a relative frequency table using the data in the table. What percentage of residences recycle at least sometimes?

Teacher answer key

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A. What is the frequency for each category?

Consistently recycles (C): **18**

Sometimes recycles (S): **25**

Rarely recycles (R): **7**

B. Use spreadsheet software to create a relative frequency table using the data in the table. What percentage of residences recycle at least sometimes?

Relative frequency table:

Category	Frequency	Relative frequency
Consistently recycles (C)	18	$18/50 = 0.36 = 36\%$
Sometimes recycles (S)	25	$25/50 = 0.50 = 50\%$
Rarely recycles (R)	7	$7/50 = 0.14 = 14\%$
Total	50	1.00 = 100%

86% of residences recycle at least sometimes.

"At least sometimes" includes the C and S categories: $36\% + 50\% = 86\%$, or $18 + 25 = 43$ of 50 residences. (Also: $100\% - 14\%$ who rarely recycle = 86% .)