

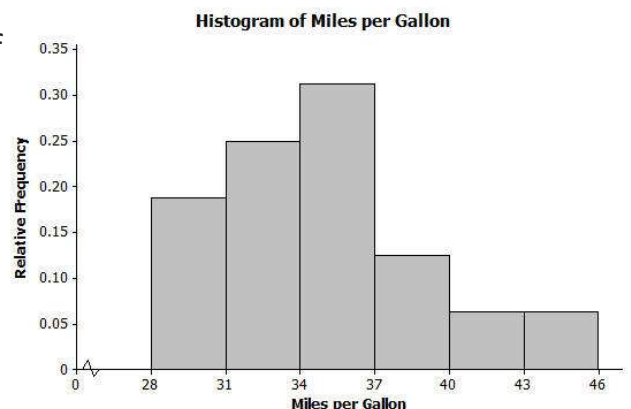
Relative Frequency Histogram Worksheets

The table below shows the highway miles per gallon of different compact cars.

Mileage	Tally	Frequency	Relative Frequency
28–< 31		3	
31–< 34		4	
34–< 37	++++	5	
37–< 40		2	
40–< 43		1	
43–< 46		0	
46–< 49		0	
49–< 52		1	

- What is the total number of compact cars?
- Complete the relative frequency column. Round the relative frequencies to the nearest thousandth.
- What percentage of the cars get between 31 and up to but not including 37 miles per gallon on the highway?

d. Juan drew the relative frequency histogram of the highway miles per gallon for the compact cars, shown on the right. Did Juan draw the histogram correctly? Explain your answer.



Relative Frequency Histogram Worksheets

The table below shows the highway miles per gallon of different compact cars.

Mileage	Tally	Frequency	Relative Frequency
28–< 31		3	0.188
31–< 34		4	0.250
34–< 37		5	0.313
37–< 40		2	0.125
40–< 43		1	0.063
43–< 46		0	0.000
46–< 49		0	0.000
49–< 52		1	0.063

a. What is the total number of compact cars?

The total number of compact cars is 16.

b. Complete the relative frequency column. Round the relative frequencies to the nearest thousandth.

See the table above.

c. What percentage of the cars get between 31 and up to but not including 37 miles per gallon on the highway?

$0.250 + 0.313 = 0.563$, or 56.3% of the cars get between 31 and up to 37 miles per gallon on the highway.

d. Juan drew the relative frequency histogram of the highway miles per gallon for the compact cars, shown on the right. Did Juan draw the histogram correctly? Explain your answer.

Juan did not draw the histogram correctly because he did not leave spaces for intervals 43–<46 and 46–<49. These spaces are needed to represent the relative frequency of zero. He also forgot to draw a bar for the final interval, 49–<52.

