

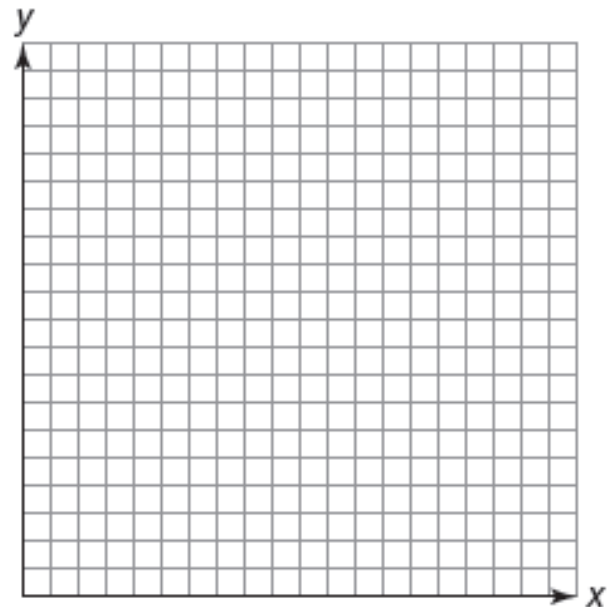
HW #5 Frequency Distributions

1. Forty workers arriving at an office building in a city were asked how they got to work that day. They were also asked if they were less than 40 years old or older. The survey results are shown in the table.

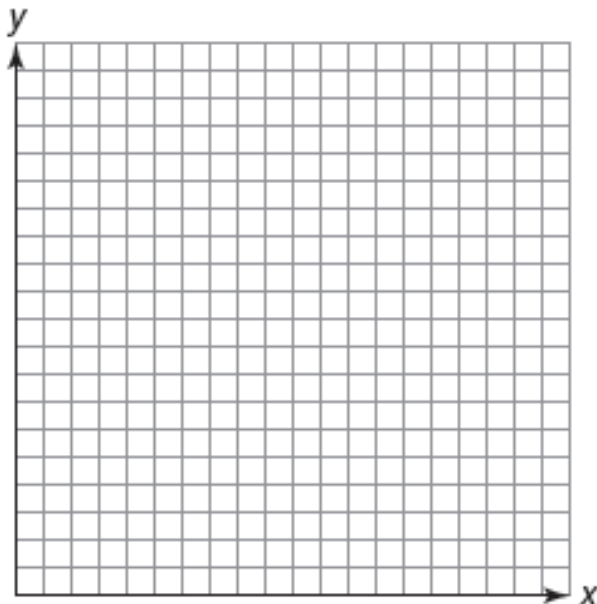
Age	Transportation Method	Age	Transportation Method
<40	Subway	<40	Bus
<40	Bus	<40	Bus
40+	Walk	<40	Subway
<40	Bus	40+	Car
<40	Subway	<40	Walk
40+	Car	40+	Taxi
40+	Car	40+	Walk
40+	Walk	<40	Subway
<40	Subway	40+	Car
40+	Taxi	<40	Taxi
<40	Walk	40+	Taxi
<40	Bus	<40	Bus
<40	Subway	<40	Bus
40+	Bus	<40	Subway
<40	Bus	40+	Walk
40+	Walk	40+	Car
40+	Taxi	40+	Subway
<40	Subway	40+	Bus
40+	Car	<40	Subway
<40	Car	40+	Taxi

a. Construct a frequency marginal distribution for the survey data.

b. Construct a double bar graph of the frequencies. Let the method, and let the y-axis represent the number of workers.



c. Construct a double bar graph of the frequencies. This time, let the x-axis represent the age levels.



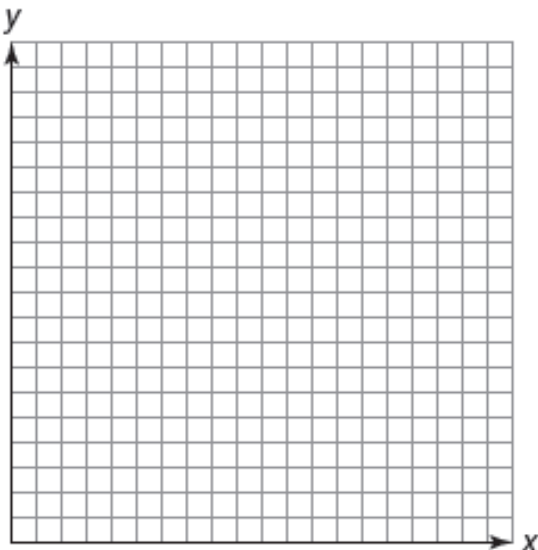
2. The principal of UMBER Elementary School (grades K 2 4) would like to reward his students for recent good test scores on a standardized test. He thinks of four different types of assemblies. In order to please the most students, the principal asks his teachers to survey the students in their classes. The students from each grade are asked which assembly they would most want to see. The table shows the responses gathered from the surveys.

	Wild Animals	Hip Hop Show	Magic Show	Puppet Show
Kindergarten	18	5	8	33
Grade 1	26	10	21	15
Grade 2	21	19	17	12
Grade 3	22	28	20	8
Grade 4	19	44	7	2

a. Construct a relative frequency distribution and relative frequency marginal distribution of the data.

	Wild Animals	Hip Hop Show	Magic Show	Puppet Show	Total
Kindergarten					
Grade 1					
Grade 2					
Grade 3					
Grade 4					
Total					

b. The principal wants to choose one assembly that he can show to all of the students. Construct a stacked bar graph of the relative frequency distribution.



c. The principal now thinks that each grade should get its own assembly. Construct a stacked bar graph of the relative frequency distribution then tell which assembly should be shown to each grade.

