

## Additional Practice

1. The table shows the results of a customer satisfaction survey of 100 randomly selected shoppers at the mall who were asked if they would shop at an earlier time if the mall opened earlier. Make a table of joint and marginal relative frequencies.

	Ages 10–20	Ages 21–45	Ages 46–65	65 and Older
Yes	13	2	8	24
No	25	10	15	3

	Ages 10–20	Ages 21–45	Ages 46–65	65 and Older	Total
Yes					
No					
Total					

2. Jerrod collected data on 100 randomly selected students, and summarized the results in a table.

		Owns an MP3 Player	
		Yes	No
Owns a Smart phone	Yes	28	12
	No	34	26

- a. Make a table of the joint relative frequencies and marginal relative frequencies. Round to the nearest hundredth where appropriate.

		Owns an MP3 player		
		Yes	No	Total
Owns a Smart Phone	Yes			
	No			
	Total			

- b. If you are given that a student owns an MP3 player, what is the probability that the student also owns a smart phone? Round your answer to the nearest hundredth.

- c. If you are given that a student owns a smart phone, what is the probability that the student also owns an MP3 player? Round your answer to the nearest hundredth.

# Problem Solving

1. The table shows the number of students who would drive to school if the school provided parking spaces. Make a table of joint relative frequencies and marginal relative frequencies.

	Lowerclassmates	Upperclassmates
Always	32	122
Sometimes	58	44
Never	24	120

	Lowerclassmates	Upperclassmates	Total
Always			
Sometimes			
Never			
Total			

2. Gerry collected data and made a table of marginal relative frequencies on the number of students who participate in chorus and the number who participate in band.

		Chorus		
		Yes	No	Total
Band	Yes	0.38	0.29	0.67
	No	0.09	0.24	0.33
	Total	0.47	0.53	1.0

- a. If you are given that a student is in chorus, what is the probability that the student also is in band? Round your answer to the nearest hundredth.
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- b. If you are given that a student is not in band, what is the probability that the student is in chorus? Round your answer to the nearest hundredth.
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**Select the best answer.**

3. What is the probability if a student is not in chorus, then that student is in band?  
 A 0.29                      B 0.38  
 C 0.43                      D 0.55
4. What is the probability that if a student is not in band, then that student is not in chorus?  
 F 0.09                      G 0.33  
 H 0.44                      J 0.73