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- ▼ **Week 4: Bivariate Distributions (Categorical Data)**

**Readings**

Reading Check due  
Mar 15, 2016 at 18:00  
UTC

**Lecture Videos**

Comprehension Check  
due Mar 15, 2016 at  
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Week 4: Bivariate Distributions (Categorical Data) &gt; Problem Set &gt; Question 2



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## Question 2

A high school counselor wants to categorize students according to two variables: their gender (male or female) and their grade level (freshman, sophomore, junior or senior).

(1/1 point)

2a. To how many possible outcomes can students be assigned?

8



8

*You have used 1 of 1 submissions*

An Economics professor kept a record of grades earned by the college students in his class, as shown below.

	A	B	C	D	F
Freshman	5	10	9	10	6
Sophomore	8	10	9	7	4
Junior	11	5	4	4	2
Senior	9	9	4	2	0


*Notice that the marginal totals have not been filled in.****All numerical input answers below should be reported as proportions.***

(1/1 point)


2b. What **proportion** of students in the class received a grade of **A**? (Round to 2 decimal places.)

## R Tutorial Videos


## Pre-Lab

Pre-Lab due Mar 15,  
2016 at 18:00 UTC 

## Lab

Lab due Mar 15, 2016  
at 18:00 UTC 

## Problem Set

Problem Set due Mar  
15, 2016 at 18:00 UTC 

► Week 5: Linear  
Functions

✓ Answer: .26

0.26

You have used 1 of 1 submissions

(1/1 point)

2c. What **proportion** of the students were **upperclassmen** (juniors and seniors)? (Round to 2 decimal places.)

✓ Answer: .39

0.39

You have used 1 of 1 submissions

(1/1 point)

2d. What is the probability that a freshman received a failing grade of **F**? (Round to 2 decimal places.)

✓ Answer: .15

0.15

You have used 1 of 1 submissions

(1/1 point)

2e. What is the probability that a randomly selected student from the class would be a **sophomore** that received a grade of **B**? (Round to 2 decimal places.)

✓ Answer: .08

0.08

You have used 1 of 1 submissions

(1/1 point)

2f. What **proportion** of juniors passed the course with a grade of **D or better**? (Round to 2 decimal places.)

✓ Answer: 0.92

**0.92***You have used 1 of 1 submissions*

(1/1 point)

2g. What is the probability that a randomly selected student from this class would be a **senior**? (Report to 2 decimal places.)

0.19

✓ Answer: .19

**0.19***You have used 1 of 1 submissions*

(1/1 point)

2h. If a student received a grade of **D** in the class, what is the probability that the student was a **senior**? (Round to 2 decimal places.)

0.09

✓ Answer: .09

**0.09***You have used 1 of 1 submissions*

(1/1 point)

2i. Does the probability that a randomly selected student is a **senior** change if we know that the student received a grade of **D** in the course?

☒ Yes ✓☐ No*You have used 1 of 1 submissions*

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