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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. How many possible outcomes can students be assigned to?

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1 of 1 An Economics professor kept a record of grades earned by the college students in his class, as shown below. 11/15/2014 4:44 PM

	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.)



**Answer:** .26

Hide Answer

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(1/1 point)

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

**Answer:** .39[Hide Answer](#)*You have used 1 of 1 submissions***Help**

(1 point possible)

2d. What is the probability that a freshman received a failing grade of **F**? (Round to 2 decimal places.)**Answer:** .15[Hide Answer](#)*You have used 1 of 1 submissions*

(1 point possible)

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.)

0.29

**Answer:** .08

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(1 point possible)

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

0.91

0.91

**Answer:** 0.92

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(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

0.19

**Answer:** .19

[Hide Answer](#)*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.)

**Answer: .09**[Hide Answer](#)*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[Hide Answer](#)*You have used 1 of 1 submissions*



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