



- Courseware
- Course Info
- Discussion
- Syllabus
- Download R and RStudio
- R Tutorials
- Readings
- Contact Us
- Progress
- Office Hours
- Community

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?

8

8

Show Answer

You have used 1 of 1 submissions

1 of 7 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.)

Show Answer

You have used 1 of 1 submissions

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

Help

Show Answer

You have used 1 of 1 submissions

(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.)*

Help

Answer: .08

Hide Answer

You have used 1 of 1 submissions

(1 point possible)

2f. What proportion of juniors passed the course with a grade of **D or better**? (Round to 2 decimal places.)**Answer: 0.92**

Hide Answer

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

Help

Show 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.)

0.09


0.09

Show 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[Show Answer](#)*You have used 1 of 1 submissions***Help**

EdX offers interactive online classes and MOOCs from the world's best universities. Online courses from MITx, HarvardX, BerkeleyX, UTx and many other universities. Topics include biology, business, chemistry, computer science, economics, finance, electronics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. EdX is a non-profit online initiative created by founding partners Harvard and MIT.


© 2015 edX Inc.

EdX, Open edX, and the edX and Open edX logos are registered trademarks or trademarks of edX Inc.

About edX

[About](#)[News](#)[Contact](#)[FAQ](#)[edX Blog](#)[Donate to edX](#)[Jobs at edX](#)

Follow Us

 [Twitter](#) [Facebook](#) [Meetup](#) [LinkedIn](#) [Google+](#)

