

Question 1

Tab 1: Notes

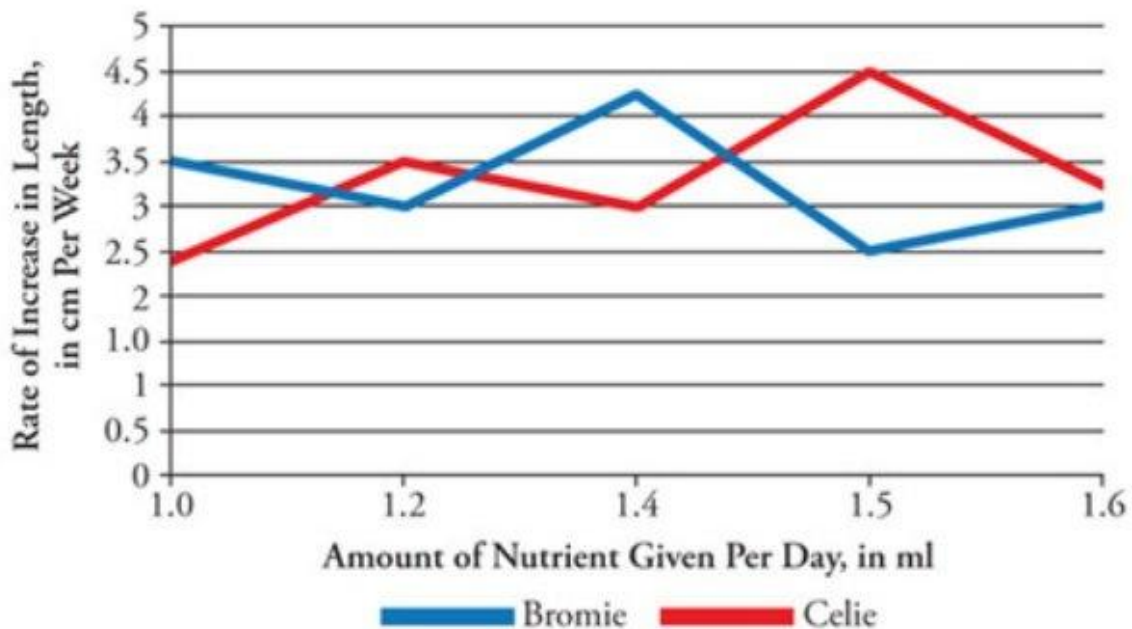
The following lab notes describe a botanical experiment

Two months ago I started ten Bromie vines and ten Celie vines on varying doses of the nutrient mixture, from 1.0 ml per day to 1.6 ml per day.

The rates of growth for each vine species are highly variable depending upon the amount of nutrient given. While administering one set amount produces one constant rate of growth, there is no clear trend that increasing the amount of nutrient given consistently increases or decreases the growth rate.

Since the nutrient solution and soil mixture is the same for every vine, there must be another explanation for the different rates of growth. Perhaps some other changing factor, such as light, makes the plant more or less able to absorb the nutrient, or possibly some elements of the nutrient are slightly toxic, and the different rates of growth for different amounts represent the shifting balance between the beneficial and harmful effects of the nutrient.

Tab 1: Graphs



1. Indicate whether the following questions can be answered based on the lab notes and the graph. Select Yes if the question can be answered by the information given. Otherwise, select No.

Ye s	N o	Statements
		What causes the variable rates of growth in the vines?
		Would giving a Celie vine 1.5 ml of nutrient per day produce a consistent rate of growth?
		What makes a plant more or less able to absorb nutrients?

Question 2

Sort By:

Serial #	Weight, ounces	Radius, inches	Shape	Magnetic?
K01	4.2	0.94	cylinder	No
K02	2.3	0.16	cone	Yes
K03	4.1	0.32	sphere	Yes
K04	6.2	0.71	cylinder	Yes
K05	4.3	0.76	cylinder	No
K06	5.5	0.54	cylinder	No
K07	4.4	0.84	cone	Yes
K08	4.7	0.37	sphere	No
K09	1.0	0.42	sphere	No
K10	2.7	0.63	cylinder	No
K11	6.3	0.67	cone	No
K12	1.1	0.76	sphere	No

Students measured a group of metallic solids of various alloys and represented their findings in the table above. In addition to weight and radius, information about shape and magnetism is depicted.

True	False	Statements
		The median weight is closer to the greatest weight than to the least weight.
		Ranking from greatest to least values, K05 has a higher rank according to weight than it does according to radius.
		The ratio of magnetic cones to magnetic spheres is equal to the percentage of solids that are either heavier than 5 ounces or magnetic.

Question 3

Stocks traded in the Mid-Atlantic stock exchange last year exhibited a full range of trading volume, from high volume to low volume. The two stocks with the highest trading volume last year were Xindi Corp and Warez Inc. All companies with high trading volume have at least one of the following three features: poor management relative to its competitors, instability within its industry, or general instability within the market as a whole. Consider Alpha Corp, a competitor of Xindi Corp, which produces landline telephone handsets. While Alpha Corp is a historically stable, well-run company, the instability within the landline telephone industry has caused its stock to be among the most actively traded. Last year the market as a whole was generally stable, and Warez Inc is in a stable industry.

Which of the following statements about Xindi Corp and Warez Inc are most supported by the information contained in the passage above? Make only one selection in each column.

Xindi Corp.	Warez Inc.	Statements
		This company had a lower trading volume than Alpha Corp.
		This company had higher sales than Alpha Corp.
		This company is a historically stable, well-run company.
		This company had poor management compared to its competitors.

		This company is in an unstable industry.
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Question 4

Movie Producer: Test screenings are an essential part of making a profitable movie; the test screenings allow us to identify scenes that the audience doesn't enjoy and cut those scenes from the movie.

Screenwriter: We should do away with test screenings altogether; making changes based on test screenings would destroy the artistic integrity of my film, and I want the masses to experience my artistic vision.

In the table below, identify which statement, if true, most seriously weakens the Movie Producer's argument, and which statement, if true, most seriously weakens the Screenwriter's argument.

Movie Producer	Screenwriter	Statements
		Many blockbuster movies include scenes that test audiences did not enjoy.
		A movie that is released without test screenings is likely to have a very limited run.
		Test screenings are not the only method for evaluating the potential success of a movie.
		Some test screening audiences do not enjoy any scenes of a movie, while others enjoy almost every scene.
		Test screenings can also be used to determine which scenes from the movie should be featured in the movie's trailer.

Question 5

Sort By:

Institution	Location	Endowment, 2005 (billions)	Endowment, 2008 (billions)	Endowment, 2011 (billions)
Columbia University	New York	\$5.20	\$7.10	\$7.80
Harvard University	Massachusetts	\$25.50	\$36.60	\$31.70
Massachusetts Institute of Technology	Massachusetts	\$6.70	\$10.10	\$9.70
Northwestern University	Illinois	\$4.20	\$7.20	\$7.20
Princeton University	New Jersey	\$11.20	\$16.30	\$17.10
Stanford University	California	\$12.20	\$17.20	\$16.50
Texas A&M University System	Texas	\$5.00	\$6.70	\$7
University of Michigan	Michigan	\$4.90	\$7.60	\$7.80
University of Texas System	Texas	\$11.60	\$16.10	\$17.10
Yale University	Connecticut	\$15.20	\$22.90	\$19.40

The table is a listing of 10 United States universities or university systems with endowments of over \$1 billion. The table includes the name of each university or university system; the state in which the university or university system is located; and the endowment, rounded to the nearest \$100 million, of each university or university system in the years 2005, 2008, and 2011.

True	False	Statements
		The schools with the two largest endowments in 2008 composed more than 1/3 of the total value of all 10 university endowments in 2008.
		The percentage increase from 2005 to 2011 in the combined size of the endowments for the two Massachusetts universities was larger than the corresponding percentage increase for the combined size of the endowments for the two Texas university systems.
		The university with the second-largest endowment in 2005 had the lowest percentage increase in endowment from 2005 to 2011.