ASSESMENT ORDER:

Following this page, you will find documents in this order:

1) The most recent template the Math Department used to assess Math for Liberal Arts, College Algebra, and Statistics.
2) Some emails sent to the department showing evidence of data collected.
3) Some examples of data collected written in an anonymous format in Excel.

Program Assessment (MAT121, MAT135, MAT120)

ⓘ This is a preview of the published version of the quiz

Started: Nov 12 at 3:42pm

Quiz Instructions

Please answer questions in as much detail as possible.

Objective: Students will interpret data given in a table and a scatter plot and represent the data as a corresponding linear model using technology. Students will then use the linear model to predict answers to various questions.

Technology tutorials:

Watch this **tutorial** **(https://www.screencast.com/t/4oGZxpbjgJB)** for how to find a linear model with DESMOS.

Watch this **tutorial** **(https://www.screencast.com/t/bqOqdXDfwc)** for how to find a linear model with the TI84.

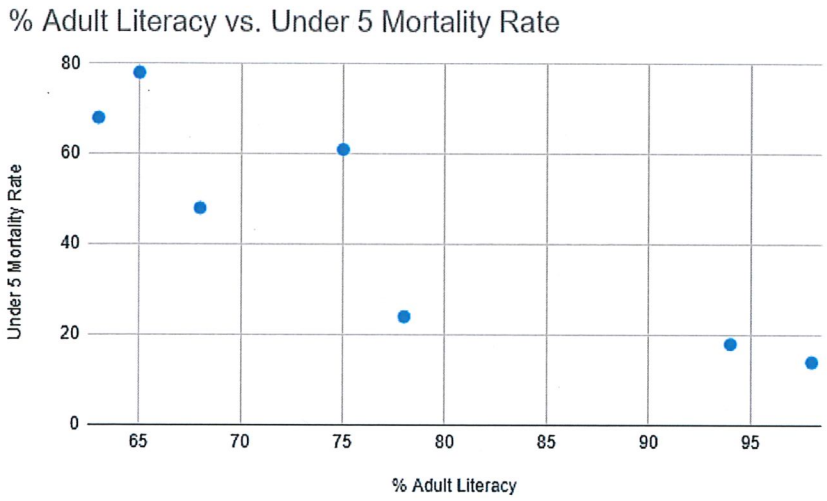
Question 1 **4 pts**

In the table below, x represents the percent of adult literacy (15 years and older who can both read and write) in 2016 for several geographical regions of the world and y represents the under-five mortality rate (probability of dying between birth and exactly 5 years of age per 1000 live births.)

SOURCE: UNICEF – THE STATE OF THE WORLD'S CHILDREN 2017

% Adult Literacy x	Under 5 Mortality Rate y
98	14
94	18
78	24
68	48
65	78
75	61
63	68

A scatter plot of the data is shown below. What can you interpret about the relationship between adult literacy and under five mortality rate by looking at the scatter plot of the data?



Edit View Insert Format Tools Table

12pt Paragraph B I U A T²

p 0 words </>

Question 2

4 pts

Using DESMOS, a TI84, or a technology of choice, find a linear model to fit the scatter plot. What linear model is given to fit the data? Round values to three decimal places and use appropriate notation for the linear model.

% Adult Literacy x	Under 5 Mortality Rate y
98	14
94	18
78	24
68	48
65	78
75	61
63	68

Edit View Insert Format Tools Table

12pt Paragraph B I U A T^2

p 0 words </>

Question 3

4 pts

Interpret the numerical slope of the linear model using the units given in the table.

Edit View Insert Format Tools Table

12pt Paragraph B I U A T²

p 0 words </>

Question 4

4 pts

In 2016, the most recent sovereign state South Sudan had an adult literacy rate of 27%. Use the linear model you found in question two to estimate its under-five mortality rate. Include unit of measurement. Show your work.

Edit View Insert Format Tools Table

12pt Paragraph B I U A T²

p 0 words </>

Question 5

4 pts

In 2016, the United states had an under-five mortality rate of 7. Use the linear model you found in question two to estimate its literacy rate. Show your work.

Edit View Insert Format Tools Table

12pt Paragraph B I U A T²

p 0 words </>

Not saved Submit Quiz

assessment

Treulieb, Joyce

Fri 3/6/2020 1:02 PM

To: Yarnell, Stacy <syarnell@coloradomtn.edu>

1 attachments (17 KB)

MAT120_assessment.xlsx;

Assessment

Treulieb, Joyce <jtreulieb@coloradomtn.edu>

Mon 4/26/2021 3:41 PM

To: Brungardt, Darren <dbrungardt@coloradomtn.edu>;White, Tracy <twhite@coloradomtn.edu>

Here are my Assessments for fall and spring. I'm not sure who to send them to.

Student	Question 1	Question 2	Question 3	Question 4	Question 5
#1	2	4	1	1	1
#2	4	4	0	4	4
#3	1	4	1	4	4
#4	1	4	1	4	4
#5	1	0	0	0	0
#6	1	4	4	4	4
#7	1	4	1	4	2
#8	1	3	1	3	4
#9	2	0	0	1	1
#10	2	1	1	0	0

Student	Question 1	Question 2	Question 3	Question 4	Question 5
#1	2	4	1	1	1
#2	1	4	2	4	4
#3	1	4	1	4	2
#4	1	3	1	0	0
#5	2	4	1	4	2

Student	Question 1	Question 2	Question 3	Question 4	Question 5
#1	1	4	4	4	4
#2	1	1	1	1	1
#3	1	0	0	0	0
#4	1	4	1	1	1
#5	0	1	1	0	0
#6	1	0	0	0	0
#7	1	4	1	4	4
#8	1	0	0	0	0
#9	1	1	1	0	0
#10	1	0	0	1	0
#11	1	4	0	1	1
#12	1	0	0	0	0
#13	1	0	0	0	0
#14	1	4	1	4	4
#15	1	4	1	4	4
#16	1	4	1	3	3
#17	3	4	4	4	4
#18	1	2	2	1	0
#19	1	4	0	0	0
#20	1	4	0	0	0
#21	1	4	4	4	3
#22	2	4	2	4	4
#23	1	0	1	1	1

For each student in your course, please enter their scores 0-4 for each question on the assessment as outlined
Please keep students anonymous.
Complete this spreadsheet for each course you are assessing and email it to Stacy Yarnell at syarnell@colorado

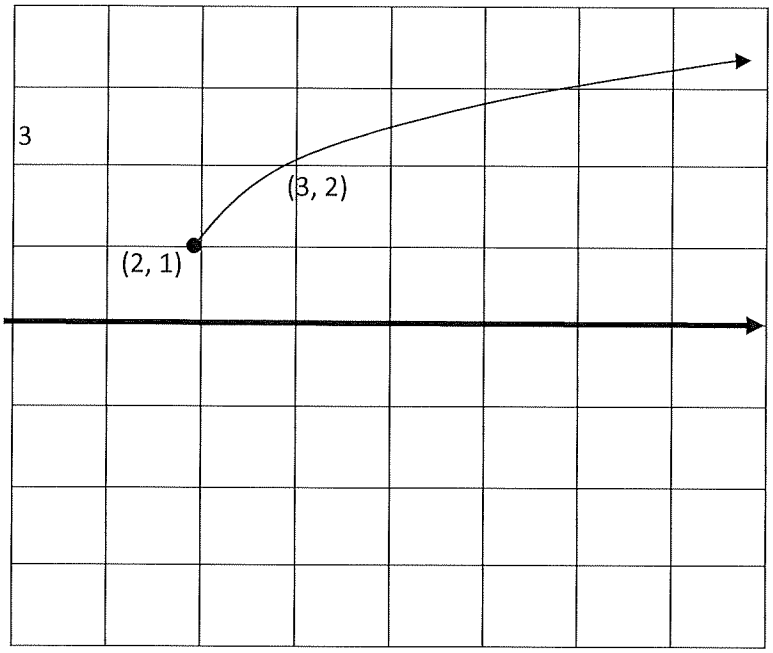
Course Name / Number:

	Question 1	Question 2	Question 3	Question 4	Question 5
Student 1	3	4	2	4	4
Student 2	3	2	1	2	0
Student 3	4	4	2	4	4
Student 4	4	4	2	4	4
Student 5	4	4	2	4	4
Student 6	3	4	3	4	4
Student 7	3	4	2	4	4
Student 8	3	4	4	4	4
Student 9	3	4	3	3	1
Student 10	3	4	4	3	1
Student 11	2	4	2	4	4
Student 12	3	4	3	4	4
Student 13	3	4	3	4	4
Student 14	3	4	3	4	4
Student 15	2	4	1	4	1
Student 16	3	4	2	4	4
Student 17	1	4	4	4	4
Student 18	3	4	2	4	4
Student 19	3	4	3	4	4
Student 20	4	4	3	4	4
Student 21	3	4	2	2	1
Student 22	3	4	4	4	4
Student 23	3	4	4	4	4
Student 24	3	4	4	4	4
Student 25	3	4	4	4	4
Student 26	2	4	4	4	4
Student 27	3	4	3	4	4
Student 28	3	4	1	4	4
Student 29					
Student 30					

NEXT PAGE IS THE ASSESSMENT WE DID FOR COLLEGE ALGEBRA FOR YEARS BEFORE THE NEWER LINEAR REGRESSION MODEL. WE USED IT AS A FINAL PAGE TO OUR FINAL EXAM, SO THAT IT COULD BE GRADED UNIFORMLY AS A DEPARTMENT.

1) Find the equation of the line passing through the points (15, 62) and (18, 74). Write your answer in slope-intercept form (y = mx + b).

2) Write the equation corresponding to the following graph:



3) Solve for x. Leave your answer in exact form (i.e., no decimal approximations). $6 = 3e^x$

4) Solve the following inequality & write your answer in interval notation: $x(2x - 1)(x + 3) < 0$