

Activity 1-1

Show all your work

Name: _____
Number: _____
Signature: _____
Score: ___/7

Excel spreadsheet functions allowed

Problem 1: Use any calculator (application) to evaluate the following. Round your answers to 6 decimal places.

a. $\frac{\sqrt{3.17} - 11.8}{423.9 - 3.2^4} \approx$

-0.031 405

b. $\left(\frac{15}{7}\right)^{2.14} - 31.4 \times \left(\frac{2}{11}\right)^{1.32} \approx$

1.800 227

Score: /3

Problem 2: Open the spreadsheet for Activity 1 and answer the following questions.

- a. List all variables and your best guess for each variable's description.

variable	description
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Variable (with corresponding descriptions): *eth* (ethnic group: African American or Native), *sex* (male or female), *age* (freshman F0, sophomore F1, junior F2, or senior F3), *lrn* (learning ability: slow learner (SL) or average learner (AL)), *days* (number of days absent in a specific academic year).

- b. Which of the variables are categorical?

Categorical variables are *eth*, *sex*, *lrn*, and could be *age* when the values of the variables are *F0*, *F1*, *F2* and *F3* even though ages usually belong to numerical variables.

- c. Was the data gathered from observational studies or experiments?

The data was gathered from observational studies because the students were not treated.

Score: /4