

Statistics Exam 2015-01-01

Exam ID 00003

Name: _____

Student ID: _____

Signature: _____

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2. (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

3. (a) ☐ (b) ☐ (c) ☐ (d) ☐ (e) ☐

4. _____

5. (a) (a) (b) (c)

(b)

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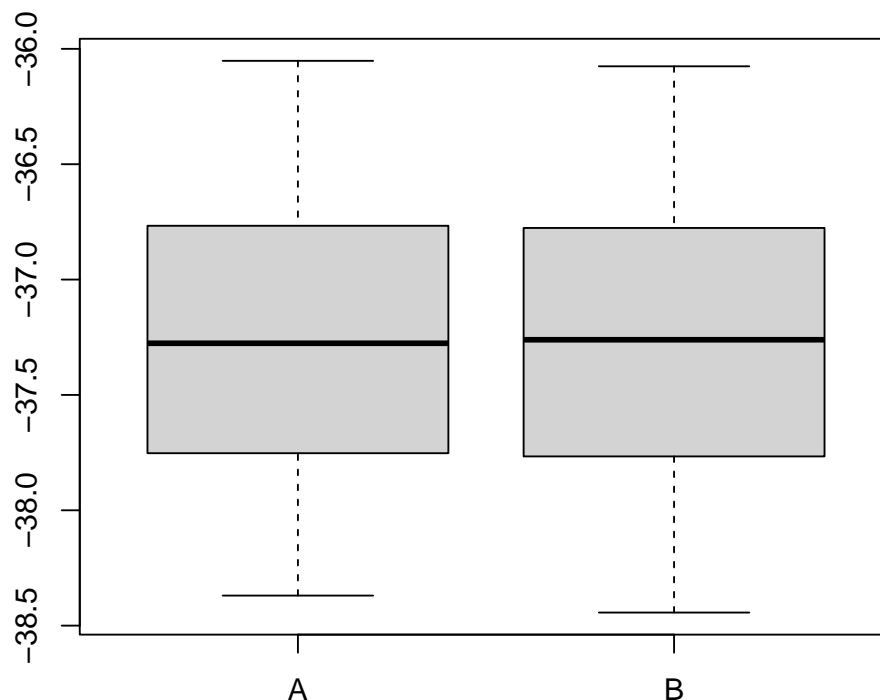
6.

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1. What is the derivative of $f(x) = x^9 e^{3.4x}$, evaluated at $x = 0.61$?
2. What is the seat of the federal authorities in Switzerland (i.e., the de facto capital)?
 - (a) St. Gallen
 - (b) Geneva
 - (c) Vaduz
 - (d) Bern
 - (e) Lausanne
3. In the following figure the distributions of a variable given by two samples (A and B) are represented by parallel boxplots. Which of the following statements are correct? (*Comment: The statements are either about correct or clearly wrong.*)



- (a) The location of both distributions is about the same.
 - (b) Both distributions contain no outliers.
 - (c) The spread in sample A is clearly bigger than in B.
 - (d) The skewness of both samples is similar.
 - (e) Distribution B is about symmetric.
4. What is the name of the R function for logistic regression?
 5. Using the data provided in `regression.csv` estimate a linear regression of y on x and answer the following questions.
 - (a) x and y are not significantly correlated / y increases significantly with x / y decreases significantly with x
 - (b) Estimated slope with respect to x :
 6. On 2013-05-03 one Euro (€) was buying 1.3109 US Dollars (\$) and 0.8431 British Pounds (£). At Frankfurter Börse around noon adidas AG was the largest winner compared with the day before with a price of € 84.8492 per share. If you buy 13 shares, how much are they worth in €?