



# Quantitative Methods 1 – Extra Questions

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Meeting 6 (by Edward)



## Welcome To Success Formula Extra Questions

### What Is It?

This free set of custom questions gives you a clear taste of what to expect on the exam and helps you check if you are keeping up with the material. They are based on our Weekly Meetings and cover the key topics you need to know (slightly delayed since meetings start in Week 2). The difficulty of each question is shown in the corner by the number of lit Success Formula logos. Share, discuss, and have fun testing your knowledge with them! 😊

### How Does It Work?

Give the questions a go on your own! We are not giving the answers on purpose. Peeking would make it way too easy. Stuck or unsure? Come into into our WhatsApp group and discuss them with us. The link/QR is on the last slide if these questions were shared with you.

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## Exam Time!



### Question

Consider the below function. How many stationary points does it have?

$$f(x, y) = xye^{x^4 - 2y^2}$$

### Answers

- A. 0
- B. 1
- C. 2
- D. 3



## Exam Time!



### Question

Consider the following function. Which of the following statement is correct?

$$f(x, y) = x^3 - xy + y^3$$

### Answers

- A. The function has no stationary points.
  - B. The function has a minimum and a maximum.
  - C. The function has a minimum and a saddle point.
  - D. The function has a maximum and a saddle point.
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## Exam Time!



### Question

What is the second order partial derivative  $f_{xx}$  of the following function?

$$f(x, y) = 4^x y^4$$

### Answers

- A.  $4^x y^4 \ln(4)^2$
  - B.  $4^x y^4 \ln(4)$
  - C.  $4^x y^4$
  - D.  $12y^2 4^x$
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## Exam Time!



### Question

We used a t-statistic to conduct a hypothesis test based on  $H_0: \mu = 0$  against the alternative  $H_0: \mu \neq 0$ . The P-value obtained was 0.08. A two-sided confidence for is to be constructed. We construct a confidence interval for  $\mu$ . Which of the following is the largest level of confidence for which the confidence interval will not contain 0?

### Answers

- A. 90% confidence
  - B. 95% confidence
  - C. 98% confidence
  - D. 99% confidence
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## Exam Time!



### Question

A sample of 10 students is used to test whether students spend more than 200€ a month on going out. The t-statistic of this test was found to be 2.9. Which of the following is a correct conclusion at the 1% level?

### Answers

- A. Reject  $H_0$  concluding that there is strong evidence that students spend more than 200€ on average.
  - B. Accept  $H_0$  concluding that there is strong evidence that students spend more than 200€ on average
  - C. Do not reject  $H_0$  concluding that there is no evidence that the true mean is more than 200€
  - D. Do not reject  $H_0$  concluding that there is evidence of the true mean being more than 200€
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## Success and What Is Next!

### Why Evaluating?

The exam is coming soon and now it is your time to shine.

A personal advise from one of us (Thomas):

“Do not double guess yourself on the exam. If you have a feeling an answer is right, go for it.”

### What is Next?

When do we see each others again? Next Period!

- Accounting with Edward, Franz, Maja, or Sofia
- Economics and Business with Sara, Violette, or Vivien
- Microeconomics with Beatriz





**We Wish You Success!**

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