

GER1000 2018 Sem 1
Quiz 1 Solutions

1. Please refer to the Synopsis in the IVLE, which has the following sentence:

"We are ____ aware that this is a compulsory module for students of very diverse backgrounds."

What is the missing word?

- (A) acutely
- (B) seriously
- (C) strongly
- (D) very
- (E) None of the above.

Answer: (A)
See Synopsis point 4.

2. In a controlled experiment, randomisation refers a method of

- (i) forming the control group and the treatment group from the enrolled subjects
- (ii) selecting eligible subjects to participate in the experiment

Which of the statements is/are true?

- (A) Both (i) and (ii)
- (B) (i) only
- (C) (ii) only
- (D) Neither (i) nor (ii)

Answer: (B)
See for example, Unit 4 slide 3 or slide 11.

3. In Unit 6 slide 12, let $rate(high)$ denote the overall rate of high IQ in the US adult population. Fill in the blank,

$rate(high)$ ____ $rate(high \mid poverty)$

- (A) is less than
- (B) is equal to
- (C) is more than
- (D) Cannot be determined.

Answer: (C)
We can calculate that $rate(high) = 180/240 = 75\%$ using the information given in the table on that slide. In the slide, it is stated that $rate(high \mid poverty) = 45.5\%$.

4. According to Unit 7, which of the following techniques are commonly used to control for confounders?

- (i) slicing
- (ii) regression
- (A) Both (i) and (ii)
- (B) (i) only
- (C) (ii) only
- (D) Neither (i) nor (ii)

Answer: (A)

See Unit 7 slide 5 and slide 11.

5. Please refer to Unit 8 slide 9. Suppose in the table the 6 admission rates remain the same, but the number of applicants to majors were some other numbers. For example, the number for A is 800 instead of 933, etc., so that the total number may be different from 4526. The percentage of women who will be admitted can never be 90%.

- (A) True
- (B) False

Answer: (A)

You can vary the numbers of applicants, to check that the percentage cannot be 90%. In fact, it must lie between the minimum of 7% and maximum of 82%.

6. Please refer to the welcome email from the GER1000 team, the one that starts with “Dear students, Welcome to GER1000 Quantitative Reasoning.” How many times does “tutorial” appear?

- (A) 1
- (B) 2
- (C) 3
- (D) 4
- (E) 5

Answer: (B)