

# Answer Key

## Sample Test Questions

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The following answer key is provided to reinforce your study of key concepts in the course. Mastering a language requires more than memorizing correct answers, however. You will be tested by questions which will require you to use the languages of research and statistics. Use these sample questions as a beginning point in testing your understanding.

### Chapter One

1. D      2. B      3. D, E, P, E, C, D, C, H, Q, C, H, V, P, R, C, E, C, E, D, D

### Chapter Two

1. C      2. A      3. B      4. D

### Chapter Three

1. Birth year is interval. "Year" is the unit of interval, but "0 AD" is not the beginning of time.  
C° or F° is interval. "Degree" is the unit of interval, but "0 degrees" is not "absence of all heat."  
Class rank is ordinal: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>...  
Test score is ratio. "Point" is the unit of interval and "0" points means "absence of mastery"  
Nationality is nominal: categories of Caucasian, Black, Hispanic, Oriental, etc.  
Body Weight is ratio. "Pound" is the unit of interval, and "0" means "absence of weight."
2. B
3. D
4. -FIRO-B scores are **ratio**, though it is difficult to tell from this statement that it isn't interval  
-A single attitude scale item produces **ordinal** data. (*A group of items produces interval data*).  
-Employment status is **nominal**. Subjects are categorized into one of three options.  
-Study Habits is **ratio**. The assumption, given max=100, is that min=0.  
-W-GCTA score is **ratio**.  
- Leadership Style is **nominal**: Subjects are categorized into one of five styles.  
- Attrition Ranking: **ordinal**  
- Child Density in **ratio** data (number/number = ratio: 0.00-1.00)

### Chapter Four

1. D      2. D      3. D, S, N, S, N, D, S, N

### Chapter Five

1. M      2. Ind      3. Mult      4. O      5. L      6. P      7. I  
8. S

### Chapter Six

1. C      2. D      3. D      4. A

### Chapter Seven

1. C      2. A      3. B      4. A

### Chapter Eight

1. D      2. D      3. B      4. C

### Chapter Nine

1. C      2. A      3. C

**Chapter Ten**

1. D      2. C      3. A      4. A      5. C      6. C

**Chapter Eleven**

1. F      2. D      3. B      4. D

**Chapter Twelve**

1. A      2. C      3. D

**Chapter Thirteen**

1. I/J      2. I/E      3. I/I      4. I/B      5. 1/C      6. E/L      7. I/D  
8. E/H      9. I/A      10. I/M      11. I/G      12. E/K

**Chapter Fourteen**

1. -12      2. 0.375      3. 125      4. -0.358      5. 128.6%      6. 66.7%      7. 0.867

8.       $Z(X-W) = (1-C)$       Solving for X

*divide both sides by Z, leaving...*

$$X-W = (1-C)/Z$$

*add W to both sides, leaving...*

$$X = ((1-C)/Z) + W$$

9.       $B(C-1) = (AB-1)/3$       Solving for A

*place the term containing A on the left:*

$$(AB-1)/3 = B(C-1)$$

*multiply both sides by 3, leaving...*

$$AB-1 = 3B(C-1)$$

*add 1 to both sides, leaving...*

$$AB = 3B(C-1) + 1$$

*divide both sides by B, leaving...*

$$A = (3B(C-1) + 1)/B$$

*simplifying the terms for B, we have...*

$$A = (3B(C-1)/B) + (1/B)$$

*simplifying the first term, we have...*

$$A = (3(C-1)) + (1/B)$$

The purpose of the algebraic exercises of 8-9 above is to accustom you to thinking in terms of relationships between numerical variables apart from actual data. If you can become comfortable thinking in terms of symbols linked together in equations (rather than words linked in sentences) then the statistical formulas you'll encounter will be far less threatening.

**Chapter Fifteen**

1. A      2. C      3. C      4. A

**Chapter Sixteen**

1. B      2. A      3. D      4. D      5. B

**Chapter Seventeen**

1. C      2. C      3. D      4. C

**Chapter Eighteen**

1. D      2. C      3. D      4. D      5. T      6. T      7. F ( $\pm 2.58$ )

**Chapter Nineteen**

1. A      2. B      3. B      4. T      5. F (excludes)

**Chapter Twenty**

1. C      2. C      3. A      4. F (matched, correlated)    5. F (a descriptive)

**Chapter Twenty-one**

1. B      2. B      3. B      4. B      5. A

**Chapter Twenty-two**

1. E      2. D      3. A      4. C      5. F      6. B

**Chapter Twenty-three**

1. D      2. C      3. A      4. C

**Chapter Twenty-four**

1. D      2. D      3. D      4. A

**Chapter Twenty-five**

1. D      2. B      3. D      4. C      5. C

**Chapter Twenty-six**

1. C      2. B      3. B      4. D

