

# A Short List of Tips for ACET Logical Reasoning and Abstract Reasoning

By: Nikko Angelo S. Carisma  
nikkocarisma@gmail.com

## Contents:

### Logical Reasoning

- Information About Logical Reasoning
- Types of Logical Statements
- Types of Definitions
- Tips for Other Items

### Abstract Reasoning

- Information About Abstract Reasoning
- Serial and Non-Serial Reasoning
- Tips in Answering this Kind of Test

### Logical Reasoning

- This part of the ACET, along with Abstract Reasoning, measures a student's critical thinking and analytic skills.
- The Logical Reasoning test determines how one can process information and identify a conclusion or interpretation from it.

#### Sample Item:

*Only fish oil contains Omega 3. Only foods that contain Omega 3 help with brain development.*

*Therefore, only fish oil helps with brain development.*

- Affirmative
- Negative
- Possibly affirmative
- Possibly negative

In this case, the answer is **A**. This is because the conclusion is supported by the data or information given above:

Fish oil = Omega 3

Omega 3 = Helps with brain development

Therefore, it may be concluded that:

Fish oil = Helps with brain development

### Types of Logical Statements

Given an if-then statement:

If  $p$  then  $q$ ,

the following logical statements can be created.

Type	Corresponding Statement	Conclusion
Repetition	$p$ , therefore $q$ .	affirmative
Converse*	$q$ , therefore $p$ .	possibly affirmative
Inverse	Not $p$ , therefore, not $q$ .	possibly affirmative
Contrapositive	Not $q$ , therefore, not $p$ .	affirmative
Conflict	$p$ , therefore not $q$ .	negative

\*The converse of a statement may be concluded as affirmative if the given statement is "If and only if  $p$ , then  $q$ ."

#### Sample Item:

Given the statement:

*"If I am bright, then I will pass the entrance exam."*

$p$  = "I am bright"

$q$  = "I will pass the entrance exam"

Type	Corresponding Statement	Conclusion
Repetition	I am bright. Therefore, I will pass the entrance exam.	affirmative
Converse*	I passed the entrance exam. Therefore, I am bright.	possibly affirmative
Inverse	I am not bright. Therefore, I will not pass the entrance exam.	possibly affirmative
Contrapositive	I did not pass the entrance exam. Therefore, I am not bright.	affirmative
Conflict	I am bright. Therefore, I will not pass the entrance exam.	negative

\*If the statement involved "If and only if I am bright," then it is concluded as affirmative.

### Types of Definitions

Type of Definition	Characteristics	Example defining the word "punctual"
<b>lexical</b> (a.k.a. dictionary)	<b>short and concise</b> ; usually those found on a dictionary	<i>doing something at the agreed or proper time</i>
<b>precising</b> (a.k.a. detailed)	<b>long and detailed</b> ; usually provides examples and other characteristics	<i>taking note of time properly and finishing tasks 2 or more days before their respective deadlines</i>
<b>stipulative</b> (a.k.a. slang)	<b>unusual</b> ; can be related to slang and colloquial words	<i>a combination of the words "puny" and "actual"; a person who fakes his or her actions to pretend they are great</i>
<b>persuasive</b> (a.k.a. bias/opinion)	<b>shows bias</b> ; implies a set of beliefs	<i>a characteristic that shows that a person values his or her time well</i>

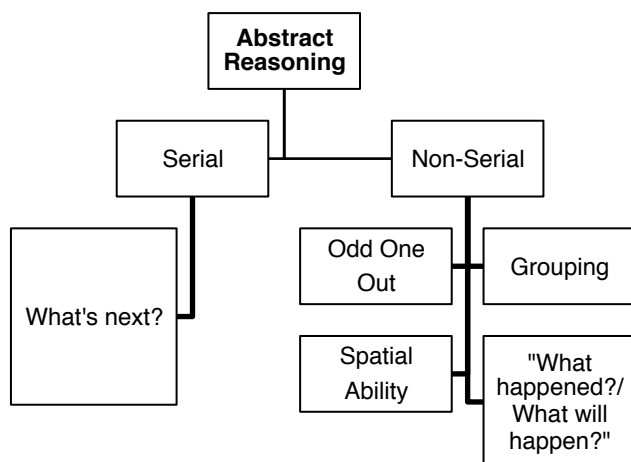
### Tips for Other Items in the Logical Reasoning Test

1. **When practicing for this test, try to draw graphs and charts as much as you can.** This can help you become better at organizing the information in your mind when answering the questions.
2. **Any type of logical statement can never be concluded as "possibly negative" or "possibly false."** This means that out of four choices you now have three to work with, providing you with a better chance of getting the correct answer.
3. **Answer items you are more comfortable with first, like a definition or a conclusion question.** This allows you to get more points within the given exam time.
4. **Work within the context of the problem. Don't bring your personal experiences and feelings into the problem.** You are expected to work with and **only** with the information presented in each question.

## Abstract Reasoning

- This part of the ACET measures how accurately and quickly a student can recognize and predict patterns.
- In the past years, this part of the ACET is given 5 minutes to answer.

The types of items that occur in the Abstract Reasoning test usually involve the following.



## Tips for Answering the Abstract Reasoning Test

- The key to answering this type of test is recognizing as many patterns as possible.** This helps in answering more items within the given time. Try to get your hand on materials with abstract reasoning (books, internet, etc.) and introduce yourself to many types of patterns.
- Time pressure plays a very important role in this exam.** Because of this, know when to answer which items. For example, answer items involving numbers first if you're more comfortable with numbers and leave items involving figures last if you're not familiar with them.
- Get a lot of practice.** This helps with both familiarization and speed. *Much like a Pokémon gains experience points by battling more opponents, you get more experience by practicing on more material and increase your chances of "defeating" the abstract reasoning test.*

## Serial Reasoning

- This kind of abstract reasoning involves a certain order or arrangement.
- It usually gives a set of data that follows a certain order, and asks what may come next when a certain pattern is followed.

Sample Item: *What comes next after the series?*

M	V	E	?
---	---	---	---

Choices:

J	Q	R	M
a	b	c	d

Answer:

The answer is **D**. This is because the series presents the initials of the names of known planets in the solar system in order.

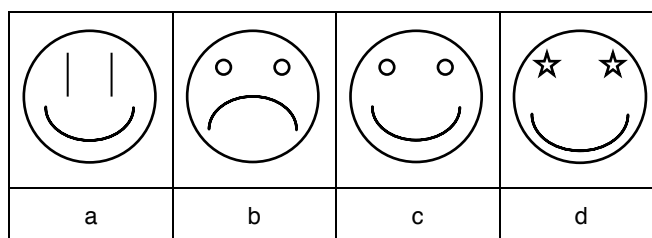
## Tips for Answering Serial Reasoning Items

- This is where familiarizing yourself with a lot of possible patterns comes in handy.
- As much as possible, answer these types of items first since they are easier to decode than items that involve non-serial reasoning.
- Serial Reasoning usually involves the following:
  - Figures**
    - Rotation or Flipping
    - Order or Rank
    - Addition or Removal of a Figure
    - Complements (e.g. black to white, vice-versa)
    - Combination
  - Numbers** (usually arithmetic/geometric sequences)
  - Letters** (the most unpredictable)
    - alphanumeric listing (EJOTY)
    - skipping
    - sounds
    - word formation
    - Roman numerals
    - strokes (no. of strokes, orientation, etc.)
    - common meaning
      - days of the calendar
      - initials of numbers
      - order of things (planets, etc.)

## Non-Serial Reasoning

- This kind of abstract reasoning does not involve an order or arrangement.
- Mostly involves common details between pieces of information.

Sample Item: *Which figure does not belong in the group?*



Answer: The answer is **A**. This is because only such a figure shows straight lines, not a shape, above a curve.

## Tips for Answering Non-Serial Reasoning Items

- Don't be intimidated if there are too many figures that are used only for one item (although these do show up in the ACET). Look for any commonality in the set and use that to find what the item asks for.
- Be wary of items that involve more than one pattern. These also show up in the exam, but not as prevalent as other types of items.
- If you're running out of time to answer the test, choose only one letter and stick with it for the rest of the exam (a.k.a. laser--B and C are good choices for the letter).

## Sources:

Hotmath.com.. (2015). Converse, Inverse, Contrapositive. Retrieved 29 July 2015, from [http://hotmath.com/hotmath\\_help/topics/converse-inverse-contrapositive.html](http://hotmath.com/hotmath_help/topics/converse-inverse-contrapositive.html)