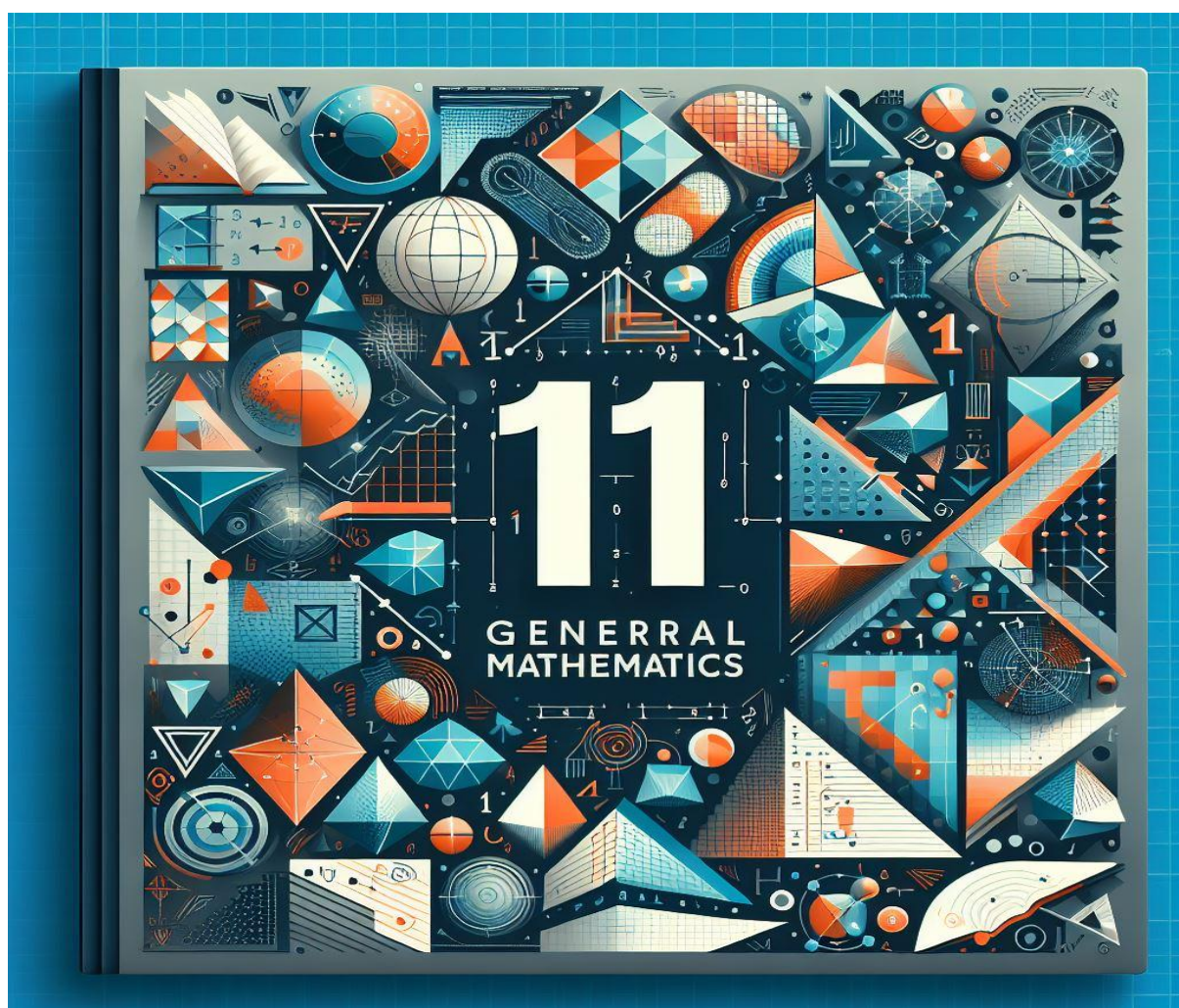


SELF- LEARNING KIT IN GENERAL MATHEMATICS 11

PROPOSITION



NESLI B. DELFIN
SALVADOR INTEGRATED SCHOOL

General Mathematics 11
Self- Learning Kit
Quarter 2 Module 13
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FOREWORD

This Self-Learning Kit aims to guide Grade 11 students on familiarizing and mastering proposition.

Propositions are likely related to the topic in English the types of sentences. A Proposition is a declarative sentence that is either true or false, but not both. A true proposition has a truth value of "true, otherwise, its truth value is false.

The different activities in this kit will enable students to explore proposition. The activities provide students with analytical thinking while doing their given tasks.

GENERAL MATHEMATICS 11 PROPOSITION

CONTENT STANDARD

The learners demonstrate an understanding of the key concepts of propositional logic; syllogisms and fallacies.

PERFORMANCE STANDARD

The learners should be able to judiciously apply logic in real-life arguments.

MOST ESSENTIAL LEARNING COMPETENCY

Illustrates and symbolizes propositions. M11GM-IIg-2

SPECIFIC OBJECTIVES

1. define proposition;
2. identify whether a sentence is a proposition or not; and
3. create sample of proposition.

WHAT HAPPENED?

What Is Your Type?

Directions: Determine what type of sentence is each of the following, write “**D**” if it is a declarative sentence, “**E**” if exclamatory sentence, “**Im**” if imperative and, “**In**” if it is interrogative. Write your answer on the space provided before each number.

- _____ 1. Did you eat your breakfast?
- _____ 2. Skin is the largest organ of our body.
- _____ 3. Congratulations!
- _____ 4. Please be quiet.
- _____ 5. Blue is my favorite color.
- _____ 6. Sun is the biggest star.
- _____ 7. What is your name?
- _____ 8. Am I pretty?
- _____ 9. Wow! that’s wonderful!
- _____ 10. My mom cooks a delicious food.

TRUE OR FALSE

Directions: Determine if the sentence is true or false. Write **T** if the statement is true and **F** if the statement is false. Write your answer on the space provided before each number.

- _____ 1. Earth is the only living planet.
- _____ 2. Water is composed of two hydrogen and two oxygen.
- _____ 3. Igorots belong to indigenous people.
- _____ 4. Mars is the largest planet in the solar system.
- _____ 5. Isabela belonged to Region II.

Examples

Determine if each sentence is a proposition or not. If it is, give its truth value.

- a: Biology is a branch of science that studies living organisms.
- b: Help yourself.
- d: Ilagan is the capital of Isabela.
- g: Hey!
- l: Santiago city is an independent city of Quirino province.
- f: Be wise.
- h: What is your favorite food?

Solution

- a: It is a declarative sentence that may either be true or false, so it is a proposition. Since based on the definition that Biology studies about life, then its truth value is true.
- b: It is an imperative sentence. Hence, it is not a proposition.
- d: It is a declarative sentence that may either be true or false, so it is a proposition. Since based on geography that Ilagan is the capital of Isabela, then its truth value is true.
- g: It is an exclamatory sentence. Hence, it is not a proposition.
- l: It is a declarative sentence that may either be true or false, so it is a proposition. Since based on geography Santiago city is an independent city but not located in Quirino province, hence it belonged to Isabela province, then its truth value is false.
- f: It is an imperative sentence. Hence, it is not a proposition.
- h: It is an interrogative sentence. Hence, it is not a proposition.

ACTIVITY 1. PROPOSITION OR NOT

Directions: Consider the following sentences. Write **P** if it is a proposition, and **NP** if not. If it is a proposition, tell whether it has a truth value or not. Write your answer on the space provided before each number.

- _____ 1. a: The largest continent is Europe.
- _____ 2. b: Do you want to eat?
- _____ 3. c: Temporal is the part of our brain responsible for understanding language.
- _____ 4. d: Happy Birthday, Tatay!
- _____ 5. e: Please all stands.
- _____ 6. x: Be polite.
- _____ 7. y: Do you understand?
- _____ 8. z: Corazon Aquino was the first woman president of the Philippines.
- _____ 9. k: That's Amazing!
- _____ 10. m: Be attentive.

ACTIVITY 2. FACT OR BLUFF

Directions: Write **Fact** if the statement is True and **Bluff** if the statement is False. Write your answer on the space provided before each number.

- _____ 1. f: Yellow and blue make violet.
- _____ 2. g: Isosceles triangles have two equal sides and angle.
- _____ 3. i: You will get 25 when you subtract 35 from 50.
- _____ 4. h: Sound travels four times faster in water than it does in air.
- _____ 5. j: Egg is rich in proteins.
- _____ 6. l: Saccharide is the basic unit of carbohydrates.
- _____ 7. o: Plants make food through the process of photosynthesis.
- _____ 8. n: In the Philippine flag the 3 stars stands for the 3 major island.
- _____ 9. p: In finding the perimeter of a square you will use formula $4s$.
- _____ 10. q: Arnis is known as the Pambasang Laro in the Philippines.

ACTIVITY 3. IT'S YOUR TIME!

DIRECTIONS: Create your own example of proposition based on the following pictures.
Write your answer on the space provided on each number.



1. _____



2. _____



3. _____



4. _____

POST-TEST

DIRECTIONS: Write the letter of your answer on a separate sheet of paper.

- _____ 1. Which makes "What is your mother's name?" a non-proposition?
a. It is bias. b. It is nonsense.
c. It is not declarative. d. It is a false statement
- _____ 2. Which does not make "You will get Vitamin C when you eat fruits." a proposition?
a. It is false. b. It is declarative.
c. It is a statement. d. It gives a command.

From items 3 – 6, identify the only proposition among the choices.

- _____ 3. a. Please guide us.
b. Hooray!
c. Kindly lower your voice.
d. Cellphone is one of the most essential technologies in our daily life.
- _____ 4. a. Stay out of it.
b. My mother cooks the most delicious food.
c. Be strong.
d. Happy Birthday!
- _____ 5. a. How old are you?
b. Where did you live?
c. Soft drinks is not good in one's health.
d. Yehey!
- _____ 6. a. Please.
b. Wearing glasses makes your sight clearer.
c. Please take off your shoes when entering.
d. Kindly pick up those papers.
- _____ 7. Which of the following denotes a proposition?
a. a bold letter b. a small letter
c. a capital letter d. an italicized letter
- _____ 8. What is the truth value of a false proposition?
a. True b. False
c. Either true or false d. Cannot be determined
- _____ 9. What type of sentence is a proposition?
a. Declarative b. Exclamatory
c. Imperative d. Interrogative
- _____ 10. What is the truth value of a proposition?
a. True b. False
c. Either true or false d. All of these

REFERENCES

Self Learning Module Quarter 2 – Module 13: Proposition
Photos are Artificial Intelligent Generated

ANSWER KEY**What Happened?****WHAT IS YOUR TYPE?****TRUE OR FALSE**

1. In	2. D	3. E	4. Im	5. D	6. D	7. In	8. In	9. E	10. D
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Pre-Test

1. T	2. F	3. T	4. F	5. T	6. F	7. T	8. T	9. T	10. T
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Post- Test

1. a	2. b	3. d	4. c	5. b	6. c	7. b	8. b	9. c	10. b
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1. c	2. b	3. d	4. b	5. c	6. b	7. b	8. b	9. b	10. a
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Activity 1

1. P	2. NP	3. P	4. NP	5. NP	6. NP	7. NP	8. P	9. NP	10. NP
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Activity 2

1. BLUFF	2. FACT	3. BLUFF	4. FACT	5. FACT	6. FACT	7. FACT	8. FACT	9. FACT	10. FACT
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Activity 3

Possible answers:

1. The girl is holding a puppy/dog.
2. The boy is reading a book.
3. The boy is riding his bicycle in going to school.
4. The mother together with her children is preparing a food.

SYNOPSIS

A Proposition is a declarative sentence that is either true or false, but not both. A true proposition has a truth value of “true”, otherwise, its truth value is “false”. Oftentimes, a small letter is used to denote a proposition.

A declarative sentence is generally a simple statement that is used to provide information about something or state a fact. It ends with a full stop or a period.

ABOUT THE AUTHOR



NESLI B. DELFIN, Teacher II, is a Senior High School teacher at Salvador Integrated School.

She graduated her Bachelor's degree at Isabela State University, Echague Campus in the year 2017 and passed the Licensure examination for Teacher (LET) at the same year.