

**Unit 4: 1.11 - Master
Language: DC121**

I. INTRODUCTION AND CLASS

40 minutes

II. OBJECTIVES:

- By the end of the lesson, students will be able to:
 - derive the derivative of the sine and cosine functions
 - apply the derivative techniques to solve for maxima and minima

III. TEACHING AIDS:

Textbook, chalkboard, overheads

IV. TEACHING METHOD:

Discovery Method

V. PREVIOUS KNOWLEDGE:

Students may have difficulty with the trigonometric functions.

VI. Anticipated problems:

- Students may get confused with the signs of the derivative.
- They may not be able to apply the derivative to solve for maxima and minima.
- They may not be able to apply the derivative to solve for maxima and minima.
- They may not be able to apply the derivative to solve for maxima and minima.

VII. Procedures:

STAGE	TEACHER'S ACTIVITIES	STUDENT'S ACTIVITIES
Introduction (5 min)	<p>I. Lesson and Objectives</p> <ul style="list-style-type: none"> - Ask the class to recall and repeat the objectives of the lesson - Ask them to try deriving the derivative of the sine and cosine functions 	<p>1. Listen:</p> <ul style="list-style-type: none"> - Listen to the teacher's instructions, give some questions and notes
Discovery (30 min)	<p>II. Derivation of the sine and cosine functions</p> <ul style="list-style-type: none"> - Give a definition of the sine and cosine functions - Ask them to derive the derivative of the sine and cosine functions - Ask them to derive the derivative of the sine and cosine functions - Ask them to derive the derivative of the sine and cosine functions - Ask them to derive the derivative of the sine and cosine functions <p>III. Practice</p> <ul style="list-style-type: none"> - Ask them to solve some problems on the derivative of the sine and cosine functions - Ask them to solve some problems on the derivative of the sine and cosine functions - Ask them to solve some problems on the derivative of the sine and cosine functions - Ask them to solve some problems on the derivative of the sine and cosine functions - Ask them to solve some problems on the derivative of the sine and cosine functions 	<p>2. Students: Work on the problems</p> <p>3. Students: Work on the problems</p> <p>4. Students: Work on the problems</p>