



**SIR ARTHUR LEWIS COMMUNITY COLLEGE**  
**ACADEMIC YEAR (2024/2025) - SEMESTER TWO**  
**END OF SEMESTER EXAMINATION ALTERNATE**

**COURSE CODE** : MAT 120  
**COURSE TITLE** : CRAFT MATHEMATICS II  
**LECTURER** : TITUS MATHURIN  
**DATE** : Monday May 05<sup>th</sup>, 2025  
**TIME** : 1:00 p.m.  
**DURATION** : 2 hours  
**STUDENT ID #** : \_\_\_\_\_

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**INSTRUCTIONS:**

This Examination Paper consists of **Three (3)** Questions.

All questions are **Compulsory**.

**Each question accounts for 26 marks      TOTAL-78 MARKS**

***LENDING OR BORROWING IS PROHIBITED.***

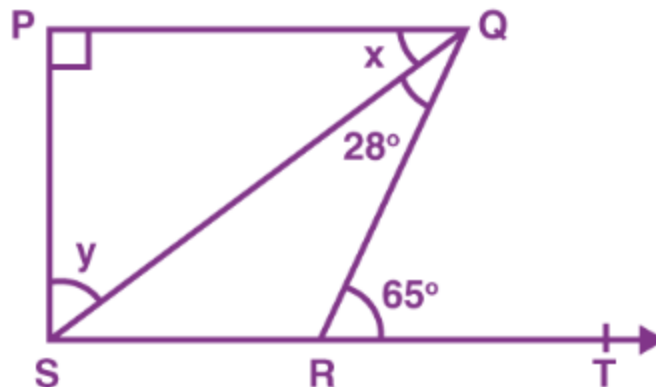
- ◆ Please number your responses accurately
- ◆ Write your ID Number on *each* answer sheet
- ◆ All cell phones must be turned off during the examination
- ◆ Programmable calculators are not allowed in this exam.

**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO**

**Instruction: Answer the following questions on the foolscap paper provided.**

**QUESTION A**

1. Explain the difference between a reflex angle and an obtuse angle. **[2 marks]**
2. The diagram below shows a combination of lines and angle formations.

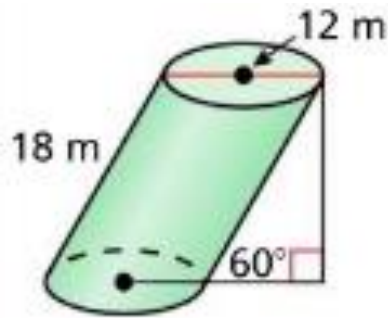


Use the properties of angles and straight lines to determine the size of the angles marked  $x^\circ$  and  $y^\circ$ . **[8 marks]**

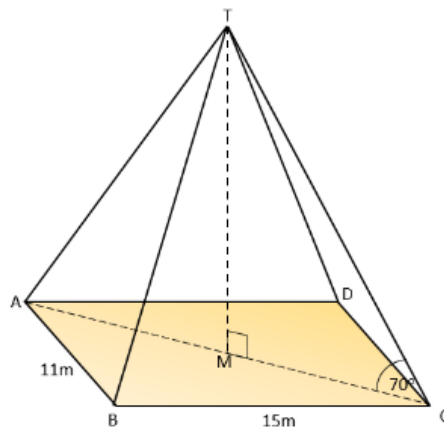
3. The size of a Samsung tablet is 11 in. If the tablet has a width of 4.5in, determine the length of the tablet. **[4 marks]**
4. Luther is standing on a building measuring 120 meters. He spots a bird at the top of a tree at an angle of depression of  $25^\circ$ . The tree is 50 meters away from the building. Using the above-mentioned information,
  - a. Draw a clearly labeled diagram to represent the information. **[2 marks]**
  - b. How much taller is the building than the tree? **[4 marks]**
  - c. Determine the height of the tree. **[1 mark]**
  - d. Calculate Luther's angle of depression to the foot of the tree. **[5 marks]**

### QUESTION B

1. List three (3) types of solids that can be classified as a prism. [3 marks]
2. The figure below shows an oblique cylinder.



- a. Calculate the vertical height of the cylinder. [4 marks]
  - b. Calculate the Volume of the cylinder. [4 marks]
3. The diagram below shows a rectangular-based pyramid.



Perform the following exercises using the above shape.

- a. Calculate the length of the diagonal AC. [3 marks]
- b. Calculate the vertical height of the pyramid TM. [4 marks]
- c. Calculate the volume of the pyramid. [4 marks]
- d. Calculate the angle formed between the slanted side TBC and the base.

[4 marks]

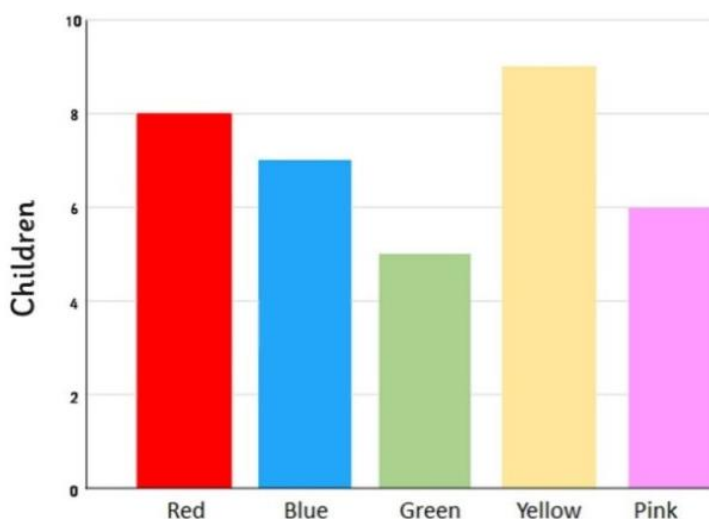
### QUESTION C

1. Explain the difference between primary and secondary data using examples.  
[4 marks]
2. Copy and complete the table below. For each of the random variables listed, write **yes** under the correct header that corresponds to it.

Random Variable	Discrete	Continuous
1. Distance from your school to your home		
2. Amount of air pressure in a tank		
3. Number of people in a class		
4. Test questions answered correctly		
5. Minimum weight before obesity		
6. Number of calculators sold		

[6 marks]

3. The diagram below shows the total number of children who were questioned regarding their favorite color.



- a. State the name of the chart used in the above diagram. [1 mark]
- b. How many children were questioned? [2 marks]
- c. What color is the least favorite among the children? [1 mark]
- d. Which two colors had a combined fifteen (15) children selecting them as their favorite color? [2 marks]
- e. What percentage of children selected red as their favorite color? [2 marks]

4. Draw a pie chart to represent the information below.

Jane	Gianna	Joseph	Jesse	Peter
\$15.00	\$50.00	\$20.00	\$15.00	\$40.00

[8 marks]

**END OF EXAMINATION**