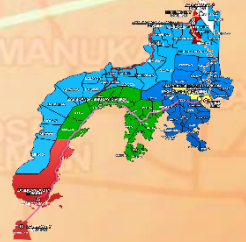


JANUARY	<i>Makugihon</i>
FEBRUARY	<i>Makigugmaon</i>
MARCH	<i>Matinabunon</i>
APRIL	<i>Matinahuron</i>
MAY	<i>Mahapsay og Malimpyo</i>
JUNE	<i>Maabtik og Masurod sa Oskotong Oras</i>
JULY	<i>Maantigo og Maabilidad</i>
AUGUST	<i>Maginhuhunoon para sa Uban</i>
SEPTEMBER	<i>Madaginton</i>
OCTOBER	<i>Matinud-anon</i>
NOVEMBER	<i>Masaligan</i>
DECEMBER	<i>Maalampon</i>



Republic of the Philippines
Department of Education
 Regional Office IX, Zamboanga Peninsula



Zest for **P**rogress
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3

MATHEMATICS

4th QUARTER – Module 5: AREA OF A SQUARE AND RECTANGLE



Name of Learner: _____

Grade & Section: _____

Name of School: _____

Mathematics – Grade 3
Alternative Delivery Mode
Quarter 4 - Module 5: Area of a Square and Rectangle
First Edition, 2020

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What I Need to Know

LEARNING COMPETENCIES:

- Visualizes, represents, and measures area using appropriate unit.
- Solves routine and non-routine problems involving:
 - a. area of square
 - b. area of rectangle



What I Know

Directions: Choose the letter that corresponds to your answer. Write on a separate sheet.

- Which of the following is the appropriate unit of measure to get the area of a handkerchief is _____?
 - square meter
 - square decimeter
 - square centimeter
 - square millimeter
- The length and width of a sheet of paper are 10 cm and 6 cm respectively. What is the area?
 - 60 sq. cm
 - 70 sq. cm
 - 80 sq. cm
 - 90 sq. cm
- A handkerchief measures 40 centimeters on each side. What is its area?
 - 900 sq.cm.
 - 1 200 sq. cm.
 - 1 500 sq. cm.
 - 1 600 sq. cm.
- The area of the room is 108 square meters. If the length is 12 meters, what is its width?
 - 8 meters
 - 9 meters
 - 12 meters
 - 14 meters
- The area of a parking lot is 144 sq. m. What is its side?
 - 13 meters
 - 12 meters
 - 10 meters
 - 9 meters

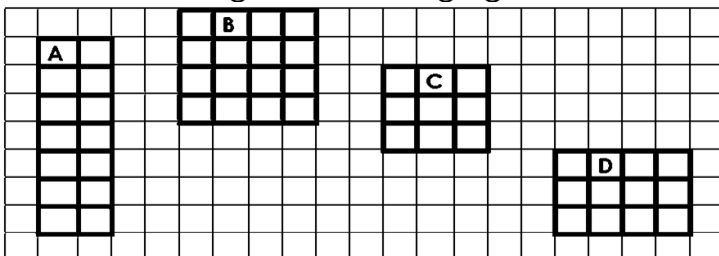
LESSON 1

VISUALIZES, REPRESENTS, AND MEASURES AREA OF A SQUARE AND A RECTANGLE



What's In

Directions: Using the following figures, answer the questions that follow.



GUIDE QUESTIONS:

1. What can you say about the illustration?
2. What does it show?
3. What are the different shapes you can see?

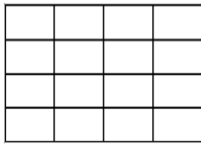


What's New

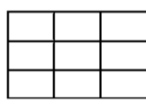
Directions: Count the small square units.



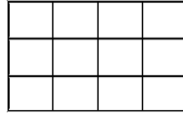
A



B



C



D

Let us answer the questions.

1. What is the shape of figure A? B? C? D?

figure A - rectangle

figure B - square

figure C - square

figure D - rectangle

2. What is the area of each figure? **Figure A, which is a rectangle, has an area of 14 square units. Figure B, which is a square, is 16 square units. Figure C, which is another square, is 9 square units and D which is a rectangle is 12 square units.**
3. Which shape has the greatest area? **Figure B has the greatest area.**
4. Which shape has the smallest area? **Figure C has the smallest area.**
5. How can we find the area of a figure? **In finding the area of a figure, count the number of square units.**

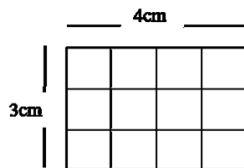


What is It

The area of a figure is the number of square units inside the figure. To get the area of each figure above, count the total number of square units that cover the rectangle. You can also multiply the length and the width of the rectangle. Hence, to find the area of a rectangle, we simply multiply the length by its width or $A = l \times w$.

EXAMPLE:

1	2	3	4
5	6	7	8
9	10	11	12



Based on the given figure, the length is 4cm and the width is 3 cm.

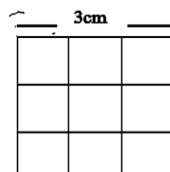
$$\begin{aligned} \text{Area of Rectangle} &= l \times w \\ &= 4\text{cm} \times 3\text{cm} \end{aligned}$$

Therefore, the area of the rectangle is 12 square centimeters. It can also be written as 12cm².

On the other hand, the sides of the square are equal. To find its area, we count the number of square units or multiply the length of one side by itself or $A = s \times s$

EXAMPLE:

1	2	3
4	5	6
7	8	9



The side of the square is 3cm.

$$\begin{aligned} \text{Area of square} &= s \times s \\ &= 3\text{cm} \times 3\text{cm} \end{aligned}$$

Therefore, the area of the square is 9 square centimeters or 9 cm².



What is It

Routine problems require a systematic procedure, patterns, steps, or formulas to be followed.

EXAMPLE:

Mrs. Chiong is a dressmaker. She wants to donate a bedcover for the CoVID-19 patients in Zamboanga City Medical Center. If the bed measures 180 cm by 90 cm, what is the area of the bed?

Study the solution below.

- **UNDERSTAND**
Know what is asked. **What is the area of the bed?**
Know the given facts. **180 cm by 90 cm**
- **PLAN**
Determine the operation to be used. **Multiplication**
Write the number sentence. **180 cm x 90 cm =N**
- **SOLVE**
Show your solution $A = l \times w$
 $= \underline{180 \text{ cm} \times 90 \text{ cm}}$
 $= \underline{16\,200 \text{ square centimeters (sq.cm) or } 16\,200 \text{ cm}^2}$
- **CHECK AND LOOK BACK**
Review and recheck your answer.
The area of the bed is 16 200 square centimeters (sq.cm) or 16 200 cm².

Non-routine problems don't require systematic procedures or steps; instead, it requires solutions or illustrations. To solve a non-routine problem, we can use the following methods or strategies below:

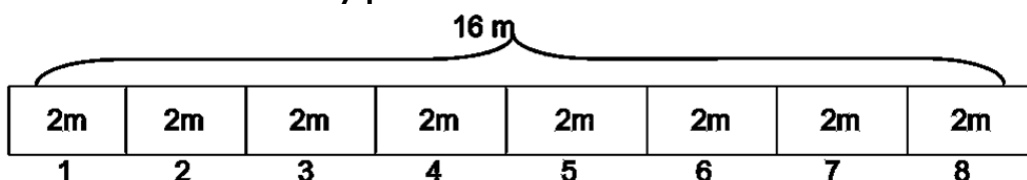
- A. Making illustrations or drawings.
- B. Guess and Check.
- C. Creating unique formulas and solutions.

EXAMPLE:

Josefa has no job. She was locked down at home because of CoVID-19 pandemic. As she opened her *baul*, she saw a clothing material with an area of 16 square meters. She wants to sew a pillowcase. How many pillowcases can she make out of it, if one pillowcase needs 2 meters?

SOLUTION:

Given : **Clothing material of 16 meters, 2 meters per one pillowcase**
 Asked : **How many pillowcases can she make?**



ANSWER : She can make 8 pillowcases.

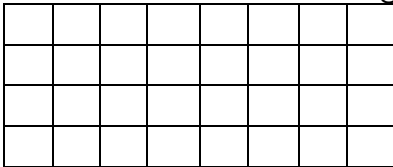
OTHER SOLUTION : 16 m divided by 2 = 8 pillowcases



What's More

Directions: Choose the letter of the correct answer. Answer it on a separate sheet.

1. What is the area of the figure?



- A. 32 square meters
- B. 40 square meters
- C. 13 square meters
- D. 12 square meters

2. A rectangular table measures 12 meters by 8 meters. What is its area?

- A. 20 sq. m.
- B. 36 sq. m.
- C. 56 sq. m.
- D. 96 sq. m.

3. Manny Pacquiao wants to give an equal share of his 50 x 50 meters lot to his 5 children. How much is each of his children's share?

- A. 50 m².
- B. 500 m²
- C. 5 000 m²
- D. 25,000 m²



What I Have Learned

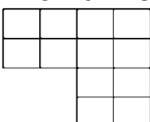
- **In finding the area of a rectangle, we use**
Area = length x width or Area = l x w
- **In finding the area of a square, we use**
Area = side x side or A = s x s
- **To solve routine problems involving the area of a square and rectangle just follow the 4-steps process.**
 1. **Understand**
What is asked?
What are the given facts?
 2. **Plan**
Determine the operation to be used
Write the number sentence
 3. **Solve**
Show your solution
 4. **Check and look back**
Review and recheck your answer
- **To solve a non-routine problem involving the area of a square and rectangle follow the following methods or strategies.**
 1. Making illustrations or drawings
 2. Guess and Check
 3. Creating a unique formula and solution



What I Can Do

Directions: Read and analyze the problems. Choose the letter of the correct answer. Write it on a separate sheet.

1. What is the area of the figure?



- A. 12 square units
- B. 24 square units
- C. 38 square units
- D. 40 square units

2. Which has a greater area, a rectangle whose length is 24m and whose width is 6m or a square whose side is 12 m? Why?
 - A. They are equal. Their areas are both 144 sq. m.
 - B. They are not equal. Their areas are both 164 sq. m.
 - C. The square has a greater area than the rectangle.
 - D. The rectangle has a greater area than the square because it has longer sides.
3. Mang Ben is weeding his rectangular garden plot, which measures 4 m by 2 m. How many square meters for him to weed?
 - A. 16 sq. m.
 - B. 18 sq. m.
 - C. 12 sq. m.
 - D. 8 sq. m.
4. Joseph wants new carpeting for his bedroom. The floor area is 5 m by 4 m wide. How much carpeting does he need to buy to cover the entire floor area?
 - A. 41 sq. m.
 - B. 14 sq. m.
 - C. 9 sq. m.
 - D. 20 sq. m.
5. Mr. Mariano will give each of his 6 children an equal share of his 60 m by 50 m pieces of land. How many square meters will each get?
 - A. 50 sq. m.
 - B. 500 sq. m.
 - C. 1 000 sq. m.
 - D. 1 500 sq. m.

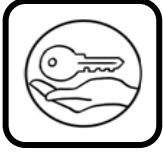


Assessment

Directions: Choose and write the letter of the correct answer on a separate sheet.

1. Find the area of a rectangle having these dimensions: length = 12cm, width = 7cm.
 - A. 84 sq. m.
 - B. 12 sq. m.
 - C. 9 m.
 - D. 6 m.
2. Find the area of the illustration below. Count the number of squares.

 - A. 12 sq. m.
 - B. 16 sq. m.
 - C. 20 sq. m.
 - D. 24 sq. m.
3. The guest room in Mr. Santos' house is square-shaped 5 meters long. Find the area of the room.
 - A. 25 sq. m.
 - B. 21 sq. m.
 - C. 20 sq. m.
 - D. 15 sq.m.
4. The area of the park measures 200 square units. If the width is 10 units, what is its length?
 - A. 15 units
 - B. 20 units
 - C. 25 units
 - D. 30 units
5. The length of a tablecloth measures 10 meters, and the width is 5 meters; what is the tablecloth area?
 - A. 15 sq. m.
 - B. 45 sq. m.
 - C. 50 sq. m.
 - D. 100 sq. m.



Answer Key

What I Know:
1. C
2. A
3. D
4. B
5. B

What's In:
1. There are small square units.
2. Shapes
3. Squares and Rectangles or Rectangles and Squares

What's More:
1. A
2. D
3. A

What I Can Do:
1. A
2. A
3. D
4. D
5. B

Assessment:
1. A
2. C
3. A
4. B
5. C

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