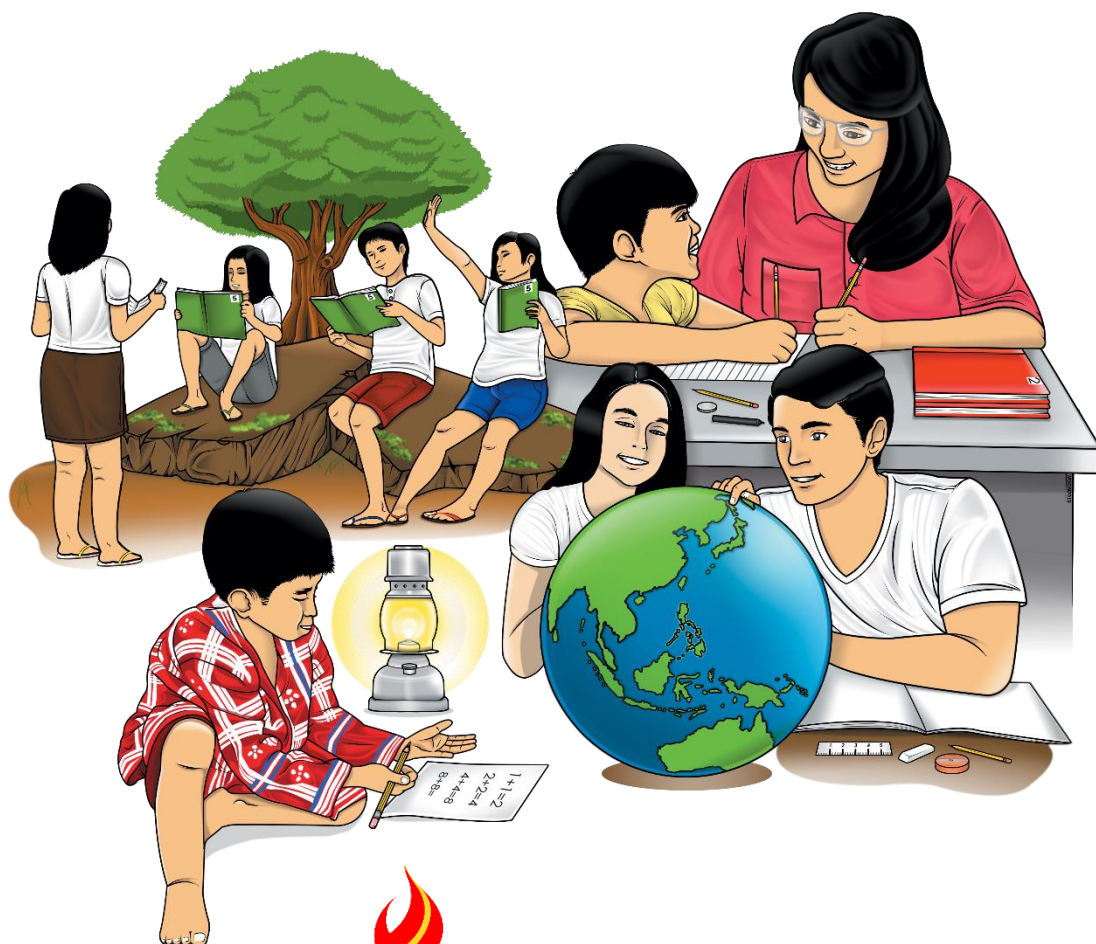


Mathematics

Quarter 4 – Module 71: Finding the Area of Rectangle and Square



Mathematics – Grade 3
Alternative Delivery Mode
Quarter 4 – Module 71: Finding the Area of Rectangle and Square
First Edition, 2019

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Quarter 4 – Module 71: Finding the Area of Rectangle and Square

This instructional material was collaboratively developed and reviewed by educators from public and private schools, colleges, and or/universities. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of Education at action@deped.gov.ph.

We value your feedback and recommendations.

Introductory Message

For the facilitator:

This gives an instruction to the facilitator to orient the learners and to support the parents, elder sibling etc. of the learners on how to use the module. Furthermore, this also instructs the facilitator to remind the learners to use separate sheets in answering the pre-test, self-check exercises, and post-test.)

For the learner:

This communicates directly to the learners and hence, must be interactive. This contains instructions on how to use the module. The structure and the procedure of working through the module are explained here. This also gives an overview of the content of the module. If standard symbols are used to represent some parts of the module such as the objectives, input, practice task and the like they are defined and explained in this portion.

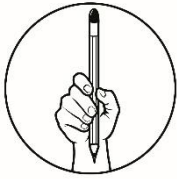


What I Need to Know

This module is designed and written with you in mind. In many aspects of your life you may wonder how wide or narrow the space around you. In this module you will discover how to measure areas of a square and a rectangle.

After going through this module, you are expected to:

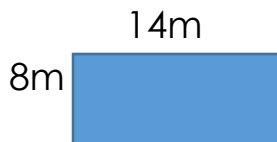
1. derive the formula of the area of a square and a rectangle;
2. find the area of a square and a rectangle in square centimeter and square meter.



What I Know

Directions: Choose the correct answer from the given choices.
Write only the letter in a separate sheet of paper.

1. What is the area of rectangle if its length is 12cm and its width is 4cm ?
 - a. 34 cm^2
 - b. 48 cm^2
 - c. 53 cm^2
 - d. 65 cm^2
2. Each side of the square is 14cm, what is the area?
 - a. 179 cm^2
 - b. 196 cm^2
 - c. 156 cm^2
 - d. 167 cm^2
3. Find the area of the rectangle.



4. Find the area of the square



5. Shiela aims to swim to a pool that measures 6 m wide and 12 m in length, what is its area?

Lesson

Finding the Area of Rectangle and Square

In this lesson you learn how to get the area of a square and rectangle. Some of the things you have or places you have visited are often measured in area. It is for you to find out while learning in this lesson.



What's In

Choose the appropriate unit of measurement whether it is square centimeter (sq. cm) or square meter (sq. m) in finding the area of the following:

1. Room _____
2. Tile _____
3. Book _____
4. Cartolina _____
5. Table _____



Notes to the Teacher

Please allow the learners to use measuring tools like ruler, meter stick and tape measure in actual measurement of objects inside the classroom or in the environment.

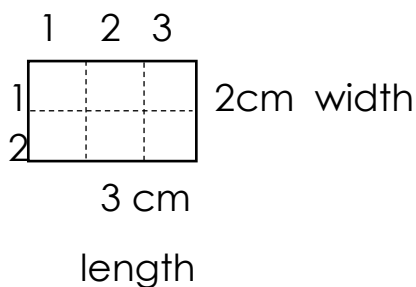
Set some safety measures/precaution in doing the task.



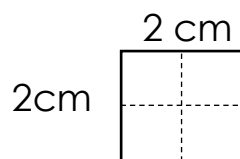
What's New

Activity 1

Study the rectangle.



Study the square



What is the length and width of the rectangle?

length _____ width _____

What operation will make the number sentence $3 \bigcirc 2 = 6$ cm²?

How many square units is the square?

What operation will make the number sentence $2 \bigcirc 2 = 4 \text{ cm}^2$ true?

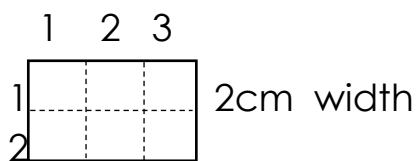


What is It

Rectangle

The length of the rectangle is 3cm.

The width of the rectangle is 2 cm.



If we connect the marks on opposite sides we will find that there are 6 square centimeters.

$$\begin{array}{ccccc} 3 & \times & 2 & = & 6 \text{ sq cm} \\ \uparrow & & \uparrow & & \uparrow \\ \text{length} & & \text{width} & & \text{Area} \end{array}$$

To find the area of a rectangle, multiply the length of one side by the length by the width.

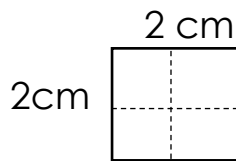
We can write this as a formula.

$$\begin{array}{ccccccc} \mathbf{A} & = & \mathbf{L} & \times & \mathbf{W} \\ \text{Area} & & \text{Length} & & \text{Width} \end{array}$$

Since both the length and the width use cm as unit of measures, the area should carry sq cm or cm^2 or square centimetre.

Square

The square has 2 sides with 2 units.



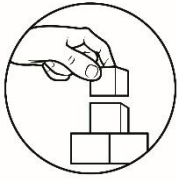
If we connect the marks on opposite sides, we will find that the area of the square is 4 square units.

To find the area of the square multiply the length of one side to the length of the other side.

$$\begin{array}{ccccccc} 2 & \times & 2 & = & 4 \text{ sq. units} \\ \uparrow & & \uparrow & & \uparrow \\ \text{Side} & & \text{Side} & & \text{Area} \end{array}$$

We can write this as a formula.

$$A = S \times S$$



What's More

Activity 2

Find the area. Write your answer on a separate sheet of paper.

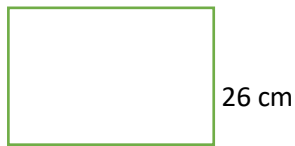
1.) 12 cm



$$A = S \times S$$

2.)

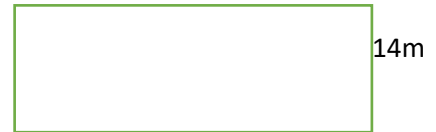
42 cm



$$A = L \times W$$

3.)

54 m



$$A = L \times W$$

4.) L= 32 cm

W= 16 cm

A= _____

5.) L= 47 m

W= 65 m

A= _____

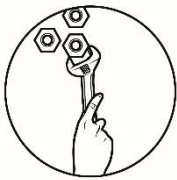


What I Have Learned

In finding the area of a square, use $A = S \times S$

In finding the area of a rectangle, use $A = L \times W$

Area should be expressed in square units.



What I Can Do

Activity 4

Leah Mae and her classmates were given an assignment to measure the area of some of the things they see at home. Help her do the task by completing the table below

| | Length | Width | Area |
|----------------|--------|-------|------------|
| door | 5 m | 2m | |
| chopping board | 15cm | | 150 sq. cm |
| flat screen TV | 36 cm | 18cm | |

| | Sides | Area |
|--------|--------|------|
| Table | 3 m | |
| Carpet | 445 cm | |



Assessment

Analyse each problem carefully and find the area. Write your answer on a separate sheet of paper.

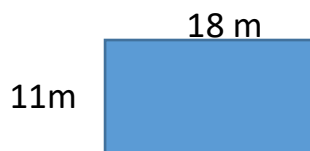
1.) If Quencyvels' book has a length of 36 cm and width of 14 cm, what is its area?

- a. 489 sq. cm
- b. 504 sq. cm
- c. 631sq. cm
- d. 778 sq. cm

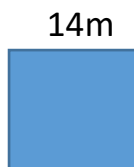
2.) If the cake measures 45 cm in each side, what is its area?

- a. 3 000 sq. cm
- b. 4 213 sq. cm
- c. 3 000sq. cm
- d. 2 025 sq. cm

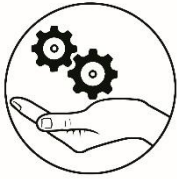
3.) Find the area of the rectangle.



4.) Find the area of square.



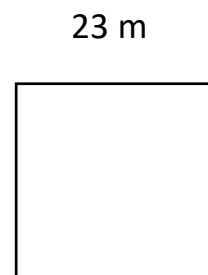
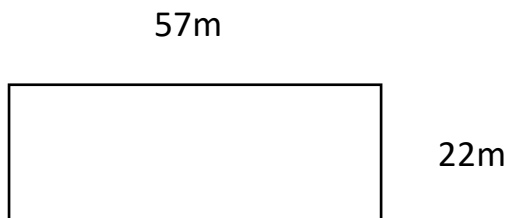
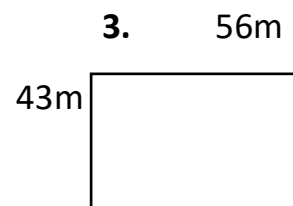
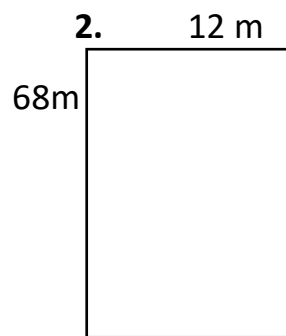
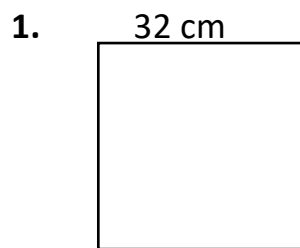
5.) Ace wants to swim to a pool with a width of 18 meters and length of 78 meters, what is its area?

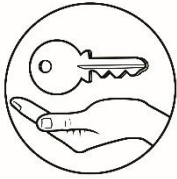


Additional Activities

Activity 5

Find the area of the given figures. Write your answer in a separate sheet of paper.





Answer Key

| | | |
|---|--|--|
| <p>Assessment</p> <ol style="list-style-type: none">AD198 sq. m196 sq. m100 m | <p>What's More</p> <ol style="list-style-type: none">144 sq. cm1 092 sq. cm756 sq. m512 sq. cm3,055 sq. cm | <p>What I Know</p> <ol style="list-style-type: none">DB112 sq. m361 sq. cm72 sq. m |
|---|--|--|

References

Coronel, Carmelita C. et al. XL Excelling in Mathematics 3. Vibal Publishing House, Inc 2007.
DepEd Teachers Guide Math 3, (pp.306-211)

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