JANUARY
Makugihon

FEBRUARY
Mahigugmaon

MARCH
Matinabangon

APRIL
Matinahuron

MAY
Mahapsay og Malimpyo

JUNE
Maabtik og Musunod sa Insaktong Oras

JULY
Maantigo og Maabilidad

AUGUST
Maginhunahunaon para sa Uban

SEPTEMBER
Madaginoton

OCTOBER
Matinud-anon

NOVEMBER
Masaligan

DECEMBER
Maalampuon

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

4

Zest for Progress
Zeal of Partnership

Mathematics

Quarter 3 - Module 7:

Perimeter In A Problem

Name of Learner: _____

Grade & Section: _____

Name of School: _____

What I Need to Know

The module contains only one lesson:

- Solving Word Problems Involving Perimeter

After going through this module, you are expected to:

1. Solve routine and non-routine problems in real-life situations involving perimeter of squares and rectangles, triangles, parallelograms, and trapezoids.

What I Know

Directions: Encircle the letter of the correct answer.

For item 1-5, refer to the problem below.

> The tablecloth of a reading table in your classroom has a length of 95 cm and a width of 56 cm. Your group is assigned to decorate the table cloth by putting lace around it. For the edging of the tablecloth, about how long of lace is needed?

1. What is asked in the problem?
   A. The cost of lace needed for the tablecloth
   B. The length of lace needed for the edging of the tablecloth
   C. The length of the tablecloth
   D. The person assigned to decorate the tablecloth

2. What are given?
   A. 59 cm, 65 cm
   B. 95 m, 56 m
   C. 59 m, 65 m
   D. 95 cm, 56 cm

3. What formula will be used to solve the problem?
   A. $P = 2l - 2w$
   B. $P = 2l + 2w$
   C. $P = l + w$
   D. $P = l - w$

4. What is the number sentence?
   A. 2 (95 cm) – 2 (56 cm) = N
   B. 2 (95 cm) + 2 (56 cm) = N
   C. 95 cm + 56 cm = N
   D. 95 cm – 56 cm = N

5. What is the answer to the problem?
   A. The tablecloth needs 78 cm of lace edging.
   B. The tablecloth needs 302 cm of lace edging.
   C. It costs P151.00 to buy lace.
   D. The tablecloth needs 151 cm of lace edging.

For item 6-7, refer to problem below

A square has a side of 4 m. Another square has a side of 1 m longer than that of the first square.

6. What is the difference of the perimeters of the two squares?
   A. 4 m
   B. 5 m
   C. 6 m
   D. 7 m

7. What is perimeter of the second square?
   A. 20 m
   B. 25 m
   C. 30 m
   D. 35 m

8. An equilateral triangle has a side of 5 cm. If the dimension is tripled, what is the perimeter?
   A. The perimeter of the triangle is 45 cm.
   B. The perimeter of the triangle is 50 cm.
   C. The perimeter of the triangle is 60 cm.
   D. The perimeter of the triangle is 65 cm.

9. Pede jogs around a rectangular camp which measures 120 m by 75 m. How far is the distance covered by Pede if he goes around the camp twice?
   A. 390 m
   B. 400 m
   C. 780 m
   D. 790 m

10. Gina has a square cartolina whose sides measures 40 cm each. She cuts the cartolina into two equal rectangles. Find the perimeter of one piece of rectangle?
   A. 80 m
   B. 100 m
   C. 120 m
   D. 1400 m

What's In

Activity 1: Where I Belong?

Directions: Match column A to Column B

Column A	**Column B**
PLANE FIGURE	FORMULA IN FINDING PERIMETER
1. Triangle	A. $P=S_1+S_2+S_3$
2. Rectangle	B. $P=Sx4$ or $P= S_1+S_2+S_3+S_4$
3. Square	C. $P= l+ l + w + w$ or $P=(2xl)+(2xw)$
4. Trapezoid	D. $P= S_1+S_2+S_3+S_4$
	E. $P= S^2$

What's New

Activity 2: Who am I?

Directions: Write the following steps of POLYA's solving a problem from the word inside the box.

Plan	**Check and Look Back**
Solve	**Understand**

Step 1:_____

Step 2:_____

Step 3:_____

Step 4:_____

What is it

Here are the steps of POLYA's problem solving involving perimeter.

STEP 1: Understand

- What is asked in the problem?
- What are given?

STEP 2: Plan

- What formula/operation will you use?
- What is the mathematical sentence?

STEP 3: Solve

- How is the solution?

STEP 4: Check and Look Back

- What is the answer to the problem?

Now, let us solve the problem below using the steps.

A boy scout walked around a rectangular camp. The rectangular camp is 30m long and 20m wide. What is the perimeter of the camp?

Steps	Answer
Step 1: Understand	
• What is asked in the problem?	The perimeter of the camp.
• What are given?	30m long and 20m wide
Step 2 : Plan	
• What formula will you use?	P = (2l)+ (2w)
• What is the mathematical sentence?	P=(2(30 m))+(2(20 m))
Step 3: Solve	
• How is the solution?	P=(2(30 m))+(2(20 m)) P=(60 m)+(40 m) P=100 m
Step 4: Check and Look back	
• What is the answer to the problem?	The perimeter of the camp is **100 m.**

Let us have another example. Read and understand the problem.

Lee walked in a triangular plaza with the sides measuring 25 m, 36 m, and 50 m respectively. What is the distance if Lee walked around the plaza twice?

Steps	**Answer**
Step 1: Understand	
• What is asked in the problem?	The distance if Lee walked around the plaza twice.
• What are given?	25m, 36m, and 50m, twice
Step 2: Plan	
• What formula will you use?	P =(S_{1+} S_{2+} S_3) x 2
• What is the mathematical sentence?	P=(25 m+36 m+ 50 m) x 2
Step 3: Solve	
• How is the solution?	P=(25 m+36 m+ 50 m) x 2 P=(111 m) x 2 P=222 m
Step 4: Check and Look back	
• What is the answer to the problem?	The distance if Lee walked around the plaza twice is **222 m.**

What's More

Activity 3: Complete Me
Directions: Read the problem. Complete the table with the correct answer.

A gymnasium was built on a rectangular lot that has a length of 50m and a width of 32 m. What is the distance around the gymnasium?

Steps	Answer
Step 1: Understand	
• What is asked in the problem?	
• What are given?	
Step 2: Plan	
• What formula will you use?	
• What is the mathematical sentence?	
Step 3: Solve	
• How is the solution?	
Step 4: Check and Look back	
• What is the answer to the problem?	

What I Have Learned

Activity 4: Fill Me Up
Directions: Read and understand the problem. Answer the following questions below.

Rex bought a trapezoidal mirror with each side measuring 25 cm, 10 cm, 25 cm, and 35 cm respectively. What is the perimeter of the mirror?

1. What is asked? _____
2. What is/are given? _____
3. What is the formula to be used? _____
4. What is the mathematical sentence? _____
5. What is the answer? _____

What I Can Do

Activity 5: Make Me Right

Directions: Read the problem. Write **YES** on the space provided if the answer is right and **NO** if not, then give the correct answer.

PROBLEM #1

A square lot has a side of 42 m. What is the perimeter of the lot?

_____1. What is asked?
Answer: The perimeter of the lot.
_____2. What is given?
Answer: 42 m
_____3. What is the formula to be used?
Answer: $P=S^2$ or P=S x S
_____4. What is the mathematical sentence?
Answer: P=42 m x 42 m
_____5. What is the answer?
Answer: The perimeter of the lot is 1 764 m.

PROBLEM #2

A Girl Scout camp was built in a parallelogram shape that has a length of 40m and a width of 30 m. What is the distance around the camp?

_____1. What is asked?
Answer: The area of the camp.
_____2. What is given?
Answer: 40 cm, 30 cm
_____3. What is the formula to be used?
Answer: P=(2l)+ (2w)
_____4. What is the mathematical sentence?
Answer: (2l)+ (2w)=P
_____5. What is the answer?
Answer: The perimeter of the lot is 140 m.

Assessment

Directions: Encircle the letter of the correct answer.

For item 1-5, refer to the problem below.

> Jerson enclosed a vegetable garden with a fence. The four sides of the garden measure 10 m, 8 m, 9 m, 12 meters, respectively. How long is the fence?

1. What is asked in the problem?
   A. The cost of fence to enclosed the vegetable garden.
   B. The length of the vegetable garden.
   C. The length of the fence to enclosed the vegetable garden.
   D. The person who enclosed the garden.

2. What are given?
   A. 10 m, 8 m, 9 m
   B. 10 m, 9 m, 12 m,
   C. 10 cm, 8 cm, 9 cm, 12 cm
   D. 10 m, 8 m, 9 m, 12 m

3. What formula will be used to solve the problem?
   A. $P = 2l - 2w$
   B. $P = 2l + 2w$
   C. $P = S_1 \times S_2 \times S_3 \times S_4$
   D. $P = S_1 + S_2 + S_3 + S_4$

4. What is the number sentence?
   A. 2 (12 m) – 2 (10 m) = P
   B. 2 (12 m) + 2 (10 m) = P
   C. 10 m x 8 m x 9 m x 12 m= P
   D. 10 m + 8 m + 9 m + 12 m= P

5. What is the answer to the problem?
   A. The length of the vegetable garden is 93 cm.
   B. The length of the fence is 39 m.
   C. It costs P93.00 to buy a fence
   D. The vegetable garden is 39 m.

For item 6-7, refer to problem below

A square has a side of 4 m. Another square has a side of 2 m longer than that of the first square.

6. What is the difference of the perimeters of the two squares?
   A. 6 m
   B. 8 m
   C. 10 m
   D. 12 m

7. What is perimeter of the second square?
   A. 24 m
   B. 36 m
   C. 48 m
   D. 60 m

8. An equilateral triangle has a side of 20 cm. If the dimension is doubled, what is the perimeter?
   A. 60 cm
   B. 80 cm
   C. 100 cm
   D. 120 cm

9. Ryan jogs around a rectangular camp which measures 60 m by 35 m. How far is the distance covered by Ryan if he goes around the camp thrice?

   A. 190 m
   B. 380 m
   C. 570 m
   D. 760 m

10. Weng has a square cartolina whose sides measures 60 cm each. She cuts the cartolina into three equal rectangles. Find the perimeter of one piece of rectangle?

   A. 160 cm
   B. 200 cm
   C. 240 cm
   D. 280 cm

Additional Activities

Activity 6: Solve Me Right
Directions: Read and solve the problem using the steps.

1. Lovely has an illustration board which is 45 cm long and 20 cm wide for her project in Arts. She will put a lace around it as decoration. How many centimeters of lace does she need?

Steps	Answer
Step 1: Understand	
• What is asked in the problem?	
• What are given?	
Step 2: Plan	
• What formula will you use?	
• What is the mathematical sentence?	
Step 3: Solve	
• How is the solution?	
Step 4: Check and Look back	
• What is the answer to the problem?	

2. A square lot is to be planted with santan plants all around. The side of the lot measures 10 m. If plants will be panted 20 cm apart, how many plants must be planted in all?

Steps	Answer
Step 1: Understand	
• What is asked in the problem?	
• What are given?	
Step 2: Plan	
• What formula will you use?	
• What is the mathematical sentence?	
Step 3: Solve	
• How is the solution?	
Step 4: Check and Look back	
• What is the answer to the problem?	

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