

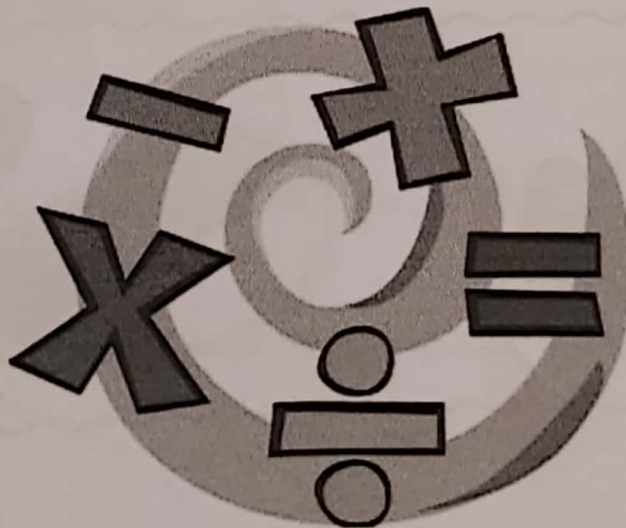
Confucian Tai Shing Primary School

2021-2022 2nd Term



Mathematics Quality Assignment

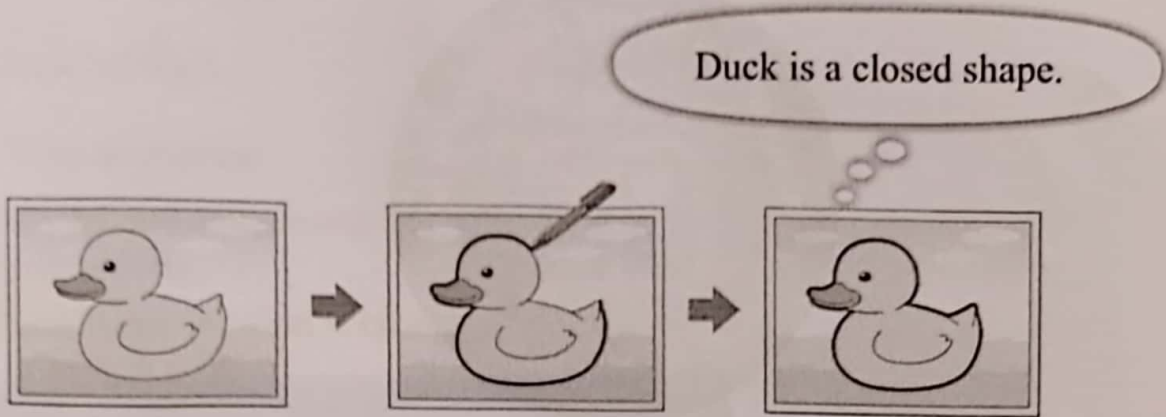
(Perimeter 4M1 ☀)



Name: Winnie (6) Class : 4Joy

(A) Drawing out the perimeter

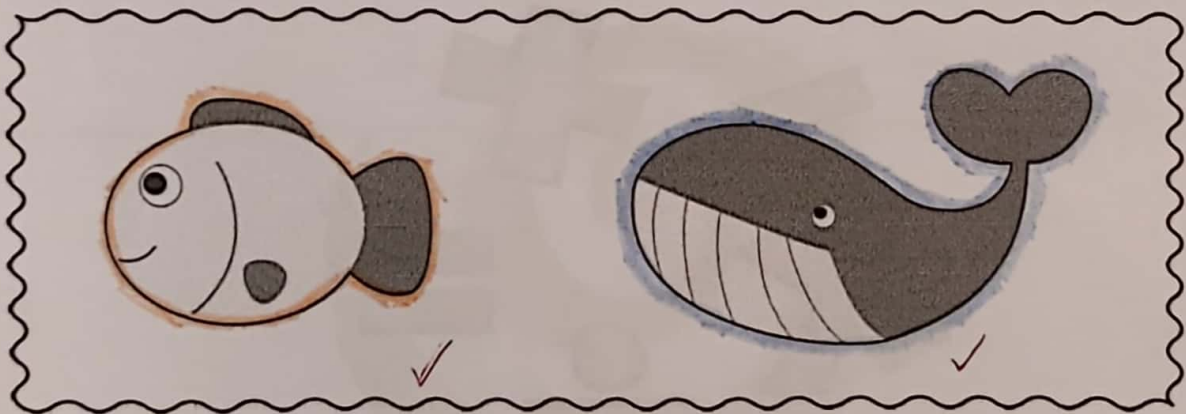
Learning Objective: Knowing Perimeter 周界



The thick line shows the duck's perimeter.

The outside edge of a closed 2-D shape is called its perimeter.

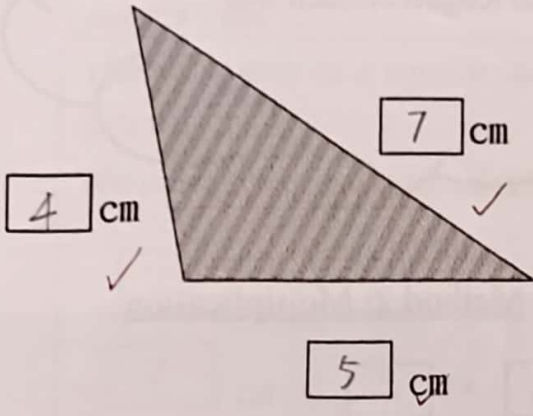
1. Use a color pencil to draw and show the perimeters of those shapes.



(B) Measure the perimeter of the following shapes.

Learning Objective: Find the perimeter of a shape.

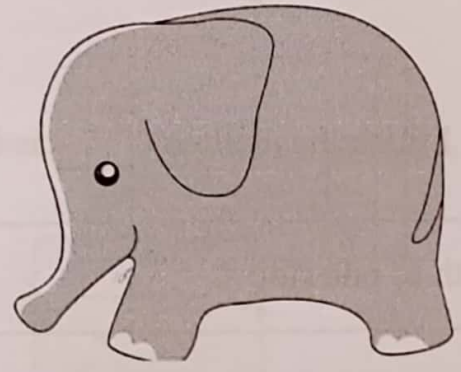
2. Use a ruler to measure the lengths of the sides of the triangle below and calculate its perimeter.



$$\begin{aligned} & \boxed{4} + \boxed{7} + \boxed{5} \\ & = \boxed{16} \end{aligned}$$

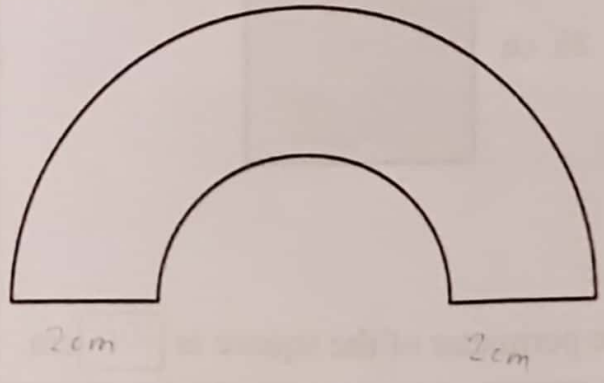
The perimeter of the triangle is $\boxed{16}$ cm.

3. Measuring the perimeter of a shape below with a string and a ruler.



The perimeter of the elephant drawing is $\boxed{24}$ cm.

4. Measuring the perimeter of a shape below with a string and a ruler.



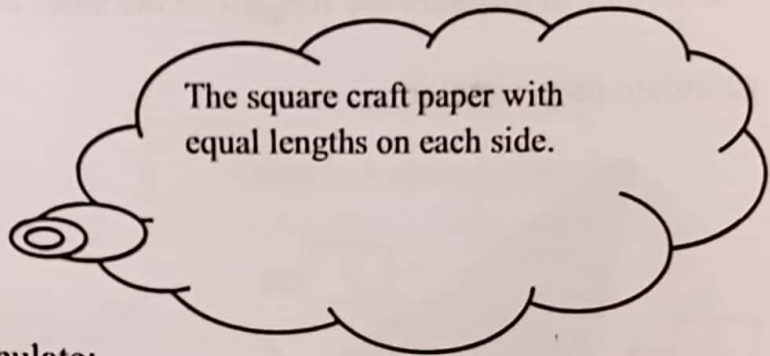
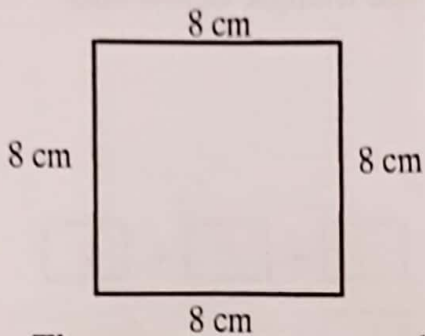
The perimeter of the graph is $\boxed{17}$ cm.

$$\begin{array}{r} \times \\ (21) \end{array}$$

(C) Fill in the blanks.

Learning Objective: Calculate the perimeter and the length of a side of a square.

5.



There are two ways to calculate:

Method 1: Addition

$$\boxed{8} + \boxed{8} + \boxed{8} + \boxed{8} \\ = \boxed{32} \text{ cm}$$

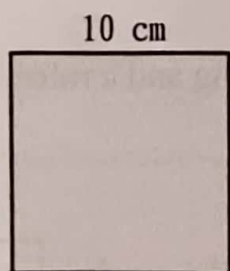
Method 2: Multiplication

$$\boxed{8} \times \boxed{4} \\ = \boxed{32} \text{ cm}$$

Think about it: Which method is faster? I think the method is faster.

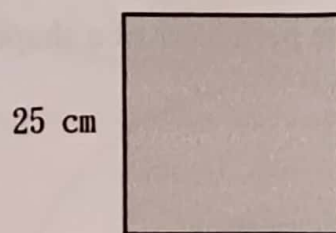
Perimeter of a square = Length of one side \times

6.



The perimeter of the square is cm.

7.

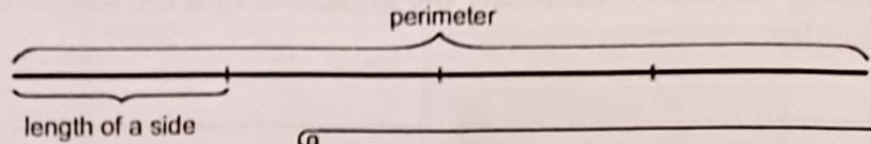


The perimeter of the square is cm.

8.



length of a side



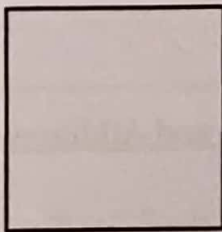
$$\text{side length of square} = \text{perimeter} \div 4$$

The perimeter of a square sticker is 28 cm. What is the length of each of its sides in cm?

We can use division to calculate:

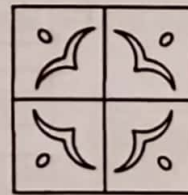
$$\begin{array}{l} \boxed{28} \div \boxed{4} \\ = \boxed{7} \text{ cm} \end{array}$$

9. The perimeter of the square is 80 cm.



The length of a side is $\boxed{20}$ cm.

10. The perimeter of the small square tiles is 28 cm, and four small tiles are used to form a large square pattern.

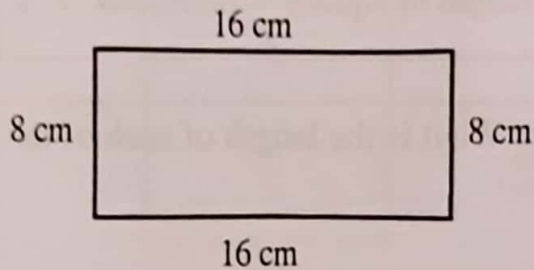


The length of a side of the large square is $\boxed{14}$ cm.

(D) Calculate the following questions.

Learning Objective: Calculate the perimeter and the length of a side of a rectangle.

11.



The rectangular drawing paper with two sets of opposite sides of equal length.

There are three calculation methods :

Method 1: Addition

$$\begin{aligned} & \boxed{16} + \boxed{16} + \boxed{8} + \boxed{8} \\ = & \boxed{48} \text{ cm} \end{aligned}$$

Method 2: Mixed Operations of

Multiplication and Addition

$$\begin{aligned} & \boxed{16} \times \boxed{2} + \boxed{8} \times \boxed{2} \\ = & \boxed{32} + \boxed{16} \\ = & \boxed{48} \text{ cm} \end{aligned}$$

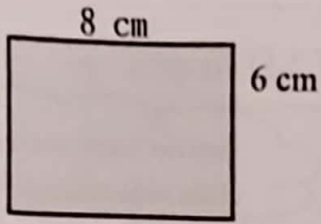
Method 3: Mixed Operations of Multiplication and Addition

$$\begin{aligned} & (\boxed{16} + \boxed{8}) \times \boxed{2} \\ = & \boxed{24} \times \boxed{2} \\ = & \boxed{48} \text{ cm} \end{aligned}$$

Think about it: Which method is faster? I think method is faster.

Perimeter of rectangle = $(\text{Length} + \text{Width}) \times 2$

12.

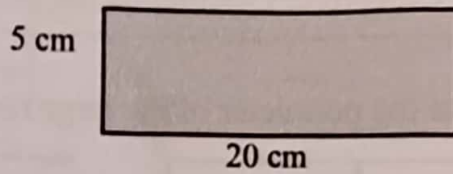


The perimeter of the rectangle is

cm.

14. ✓

13.

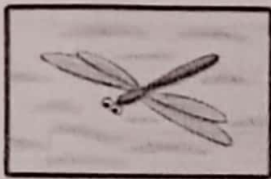


The perimeter of the rectangle is

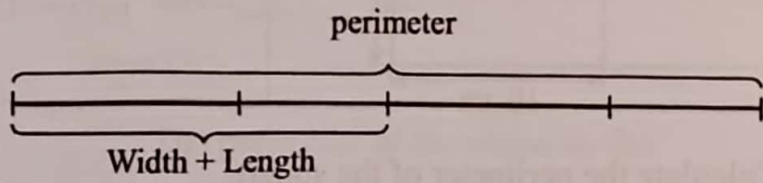
cm.

✓

Length



Width



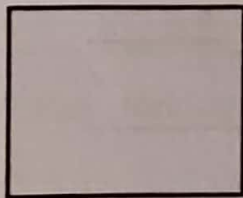
The sum of "length + width" of a rectangle = $\text{perimeter} \div 2$

The length of a rectangle = $\text{perimeter} \div 2 - \text{width}$ ✓

The width of a rectangle = $\text{perimeter} \div 2 - \text{length}$ ✓

15. The perimeter of a rectangle is

80 cm, length is 25 cm.



25cm

The width is cm.

✓

16. The perimeter of a rectangular

bookmark is 40 cm and width is 5 cm.



The length is cm.

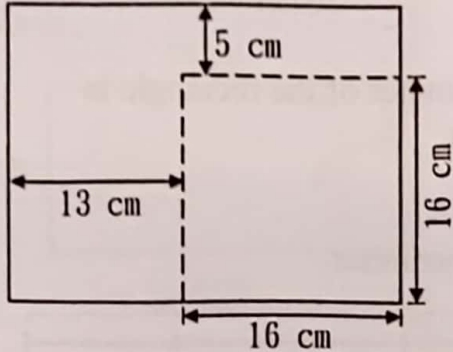
✓

(E) Calculate the following questions.

Learning Objective: Calculating the perimeter of 2-D shapes.

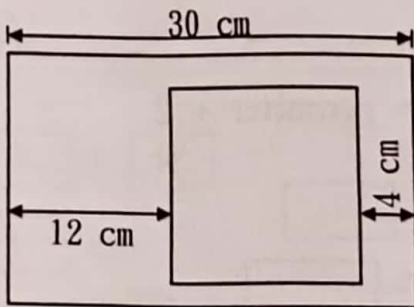
17. Calculate the perimeter of the large rectangle.

Find the length and width of the large rectangle first.



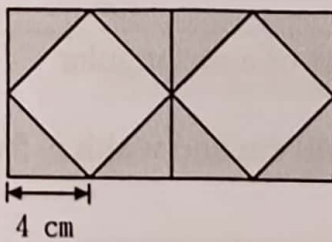
$$\begin{aligned} &(13+16+16+5) \times 2 \\ &= 50 \times 2 \\ &= 100 \\ \therefore &\text{The perimeter of the large} \\ &\text{rectangle is } 100 \text{ cm.} \end{aligned}$$

18. Calculate the perimeter of the square.



$$\begin{aligned} &(30-12-4) \times 4 \\ &= (18-4) \times 4 \\ &= 14 \times 4 \\ &= 56 \\ \therefore &\text{The perimeter of the square is } 56 \text{ cm.} \end{aligned}$$

19.

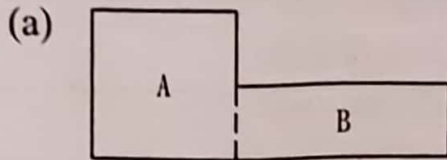
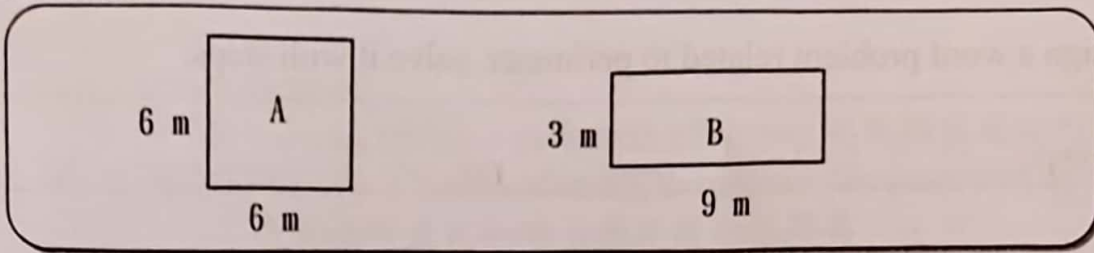


The rectangle on the left is made up of 8 identical (形狀大小相同) isosceles right-angled triangles (等腰直角三角形) and 2 small squares (正方形). Find the perimeter of the rectangle.

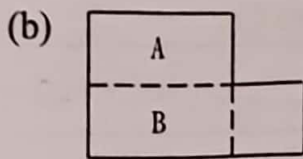
$$\begin{aligned} &\underline{(4 \times 4 + 4 \times 2) \times 2} \\ &= \underline{(16 + 8) \times 2} \\ &= \underline{24 \times 2} \\ &= \underline{48} \end{aligned}$$

The perimeter of the rectangle is 48 cm.

20. The following shapes are made up of square A and rectangle B. Find their perimeters.



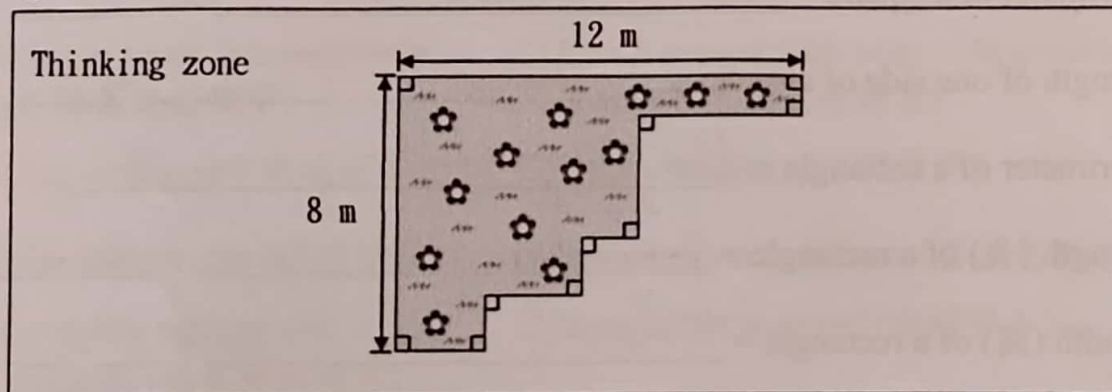
The perimeter of the shape on the left is 42 m.



The perimeter of the shape on the left is 24 m.

(F) Thinking Corner.

21. Below is the floor plan of a garden, if a fence (圍欄) is built around the garden, what is its perimeter in metre (m)?



Show your working $(12+8) \times 2$ ✓

$= 20 \times 2$ ✓

$= 40$ ✓

∴ Its perimeter is 40 metres. ✓

(G) Challenge Question.

22. Design a word problem related to perimeter, solve it with steps.

The length of a rectangle table is 104 cm. If its perimeter is 336 cm, what is its width in cm.

$$\begin{aligned} & 336 \div 2 - 104 \\ & = 168 - 104 \\ & = 64 \\ \therefore & \text{Its width is } 64 \text{ cm.} \end{aligned}$$

Marks: 2 / 22

Summary:

1. Perimeter of a square = $\text{Length of one side} \times 4$
2. Length of one side of a square = $\frac{\text{Perimeter of a square}}{4}$
3. Perimeter of a rectangle = $(\text{Length} + \text{Width}) \times 2$
4. Length (長) of a rectangle = $\frac{\text{Perimeter of a rectangle}}{2} - \text{Width}$
5. Width (闊) of a rectangle = $\frac{\text{Perimeter of a rectangle}}{2} - \text{Length}$

Assessments :

Self-assessment :

After studying this chapter

- I can identify the perimeter of shapes 我能辨認圖形的周界
- I can use a ruler and string to measure the perimeter of shapes
我能運用直尺和繩子量度圖形的周界
- I can use proper formulas to calculate perimeters. 我能利用適當的公式進行計算
- I pay attention to the units. 我有注意單位
- I calculate carefully (Work)
- I learned with effort (Attitude)
- I check the steps carefully (Ability)

I have learnt that ^{how to use} proper formulas to calculate perimeters ✓

Peer assessment : Neat writing ✓

Parents' Feedback :

- | | |
|---|---|
| <input checked="" type="checkbox"/> Able to work independently
(能獨自完成課業) | <input type="checkbox"/> Finish assignments only with guidance
(須指導才能完成課業) |
| <input checked="" type="checkbox"/> Neat writings (字體端正) | <input type="checkbox"/> Sloppy writings (字體草率) |
| <input checked="" type="checkbox"/> Tidy assignment (課業整潔) | <input type="checkbox"/> Pay attention to tidiness (要注意整潔) |
| <input checked="" type="checkbox"/> Complete assignment
seriously (認真完成課業) | <input type="checkbox"/> More effort required (仍須努力) |

Other comments : _____

Teacher's Feedback :

- | | |
|--|---|
| <input checked="" type="checkbox"/> Able to master the learning objectives of the unit | <input type="checkbox"/> Unable to master some learning objectives of the unit |
| <input type="checkbox"/> Identify correctly | <input type="checkbox"/> Failed to Identify |
| <input type="checkbox"/> Neat writings | <input type="checkbox"/> Sloppy writings |
| <input type="checkbox"/> Tidy assignment | <input type="checkbox"/> Pay attention to tidiness |
| <input type="checkbox"/> Completed assignment according to instructions | <input type="checkbox"/> Be more careful in reading the question |
| <input checked="" type="checkbox"/> Challenge question is creative
自擬題有創意 | <input type="checkbox"/> Challenge question can be more challenging
自擬題可再向難度挑戰 |

Excellent

Good

Satisfactory

Improvement needed

Other comments : You understand how to calculate perimeters
of squares, rectangles & 2-D shapes!

The End