



G3-G4
Basic

G5-G6
Advanced

Helping With Math

GRADES

Spatial Skill:
Perimeter

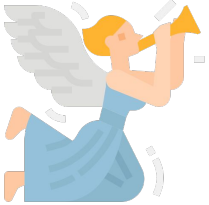
Suitable for students
aged 7-11



This pack is suitable for learners aged 7-11 years old or 3rd to 5th grades.

The content covers fact files and relevant basic and advanced activities of perimeter topics that aim to develop and strengthen the learners' spatial skills.

Feliz Navidad!



Las Posadas is a religious festival being celebrated in Mexico and some parts of the United States from December 16 to 24. This is to commemorate the journey of Mary and Joseph from Nazareth to Bethlehem to safely give birth to Jesus.

Spatial Skill

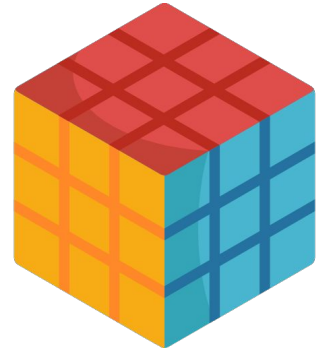


Spatial skills enable us to mentally visualize, manipulate, and organize spatial relationships in real life. Using this skill, we are able to quantify the physical spaces of the objects around us.



CONCEPTS

SPATIAL SKILL



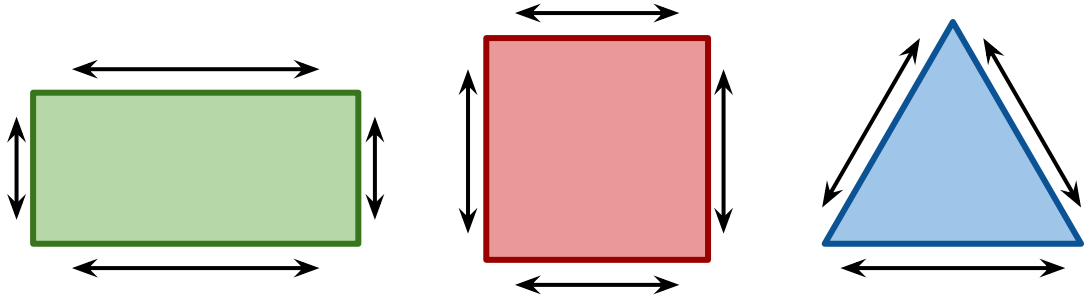
- This is the ability to reason, understand, and remember the spatial relationships among each objects.
- There are four types: *spatial perception*, *spatial visualization*, *mental folding*, and *mental rotation*.
- It is said that spatial skills are related to mathematical learning and performance.
- Young children can already learn spatial skills through words being used by their parents. Words that are used describe the size (*big, enormous, wide, etc.*), shapes (*round, square, diamond, etc.*) and spatial concepts (*over, under, beside, etc.*).
- Having this skill allows us to be conscious of the things in our environment, like the following:
 - ★ Location - This helps us identify the location of an object.
 - ★ Movement - This skill helps you to navigate your surroundings and inform you how people and objects move.
 - ★ Social - This can affect social functions by helping you identify the personal space of a person.
 - ★ Reading & Writing - This helps us understand the sentence structure and grammar.
 - ★ Mathematics - This helps us to understand geometry and arranging numbers



CONCEPTS

PERIMETER OF A SHAPE

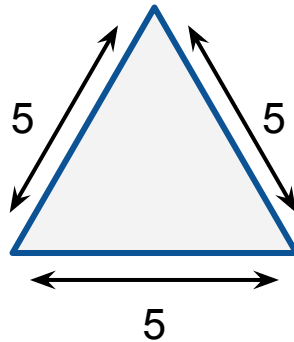
- This is the distance around a two-dimensional shape.



- Different polygons have different formula. Let us learn the formula together.

TRIANGLE

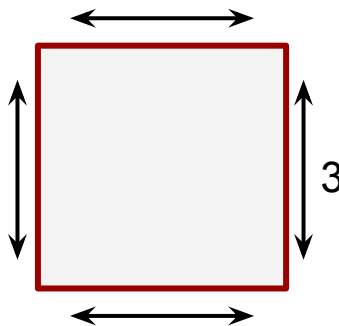
$$P = a + b + c$$



$$P = a + b + c$$
$$P = 5 + 5 + 5$$
$$P = 15$$

SQUARE

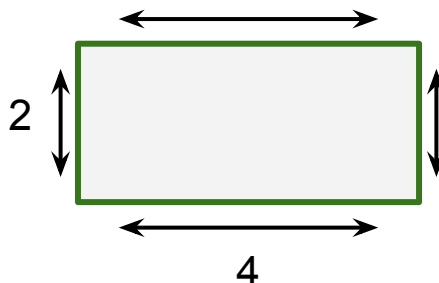
$$P = 4 \times a$$



$$P = 4 \times a$$
$$P = 4 \times 3$$
$$P = 12$$

RECTANGLE

$$P = 2 \times (a + b)$$



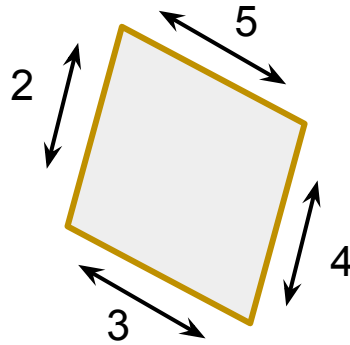
$$P = 2 \times (a + b)$$
$$P = 2 \times (2 + 4)$$
$$P = 2 \times (6)$$
$$P = 12$$



CONCEPTS

QUADRILATERAL

$$P = a + b + c + d$$



$$P = a + b + c + d$$

$$P = 2 + 3 + 4 + 5$$

$$P = 14$$

- ★ When polygons are **regular, with equal sides**, you can find its perimeter by simply multiplying the number of sides with the length of its side. (*number of side \times length of one side*).
- ★ When polygons are **irregular, with no equal sides**, add all of its sides together to get the perimeter. (*$a + b + c + d$*)

Let's try to solve the perimeter of the following polygons.

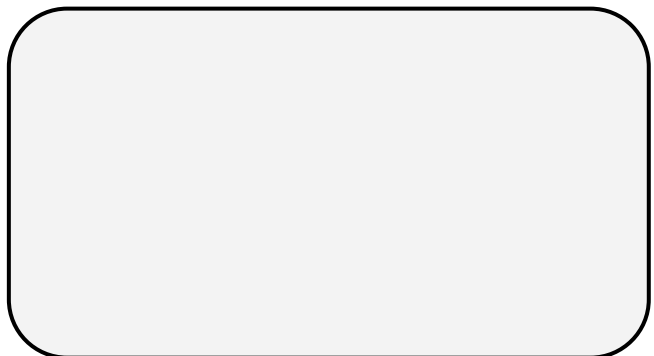
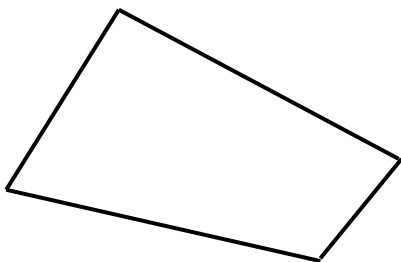
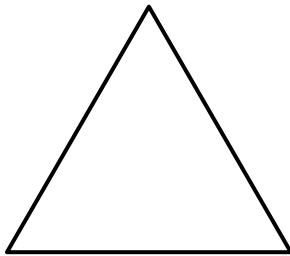


TABLE OF ACTIVITIES

Ages 7-9 (Basic)		<u>G3 - G4</u>
1	Christmas Gifts	
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7	The Instruments	
8	Event Preparations	
9	Herod's Quest	
10	Song Practice	

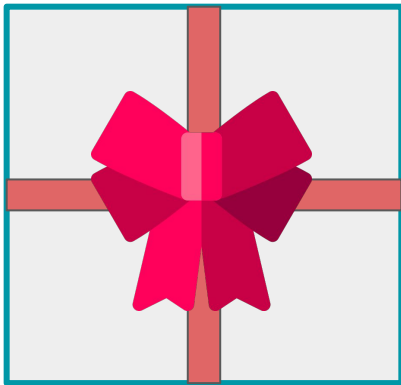


CHRISTMAS GIFTS

G3-G4
Basic

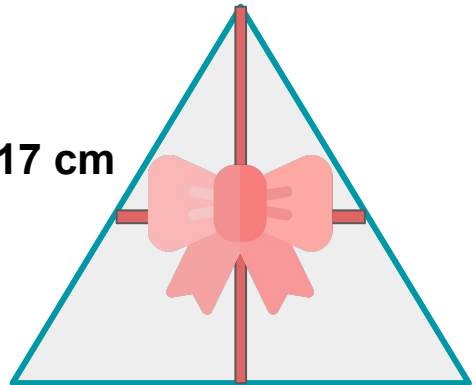
Christmas is coming! Make sure to get the right gifts for your loved ones by identifying the perimeter of each gift below. Remember that these are regular polygons.

20 cm



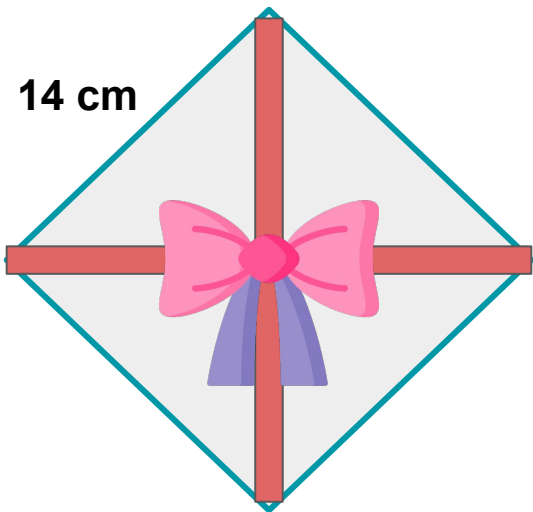
1. _____

17 cm



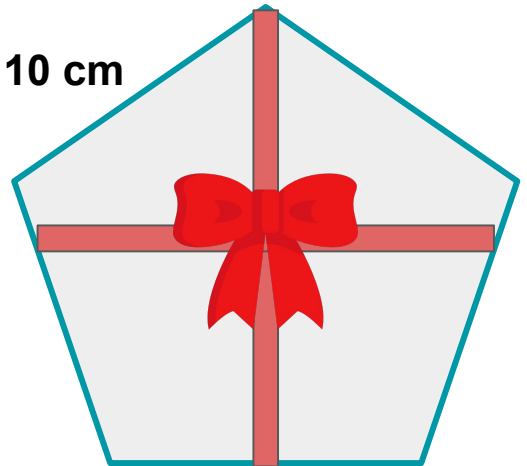
2. _____

14 cm



3. _____

10 cm



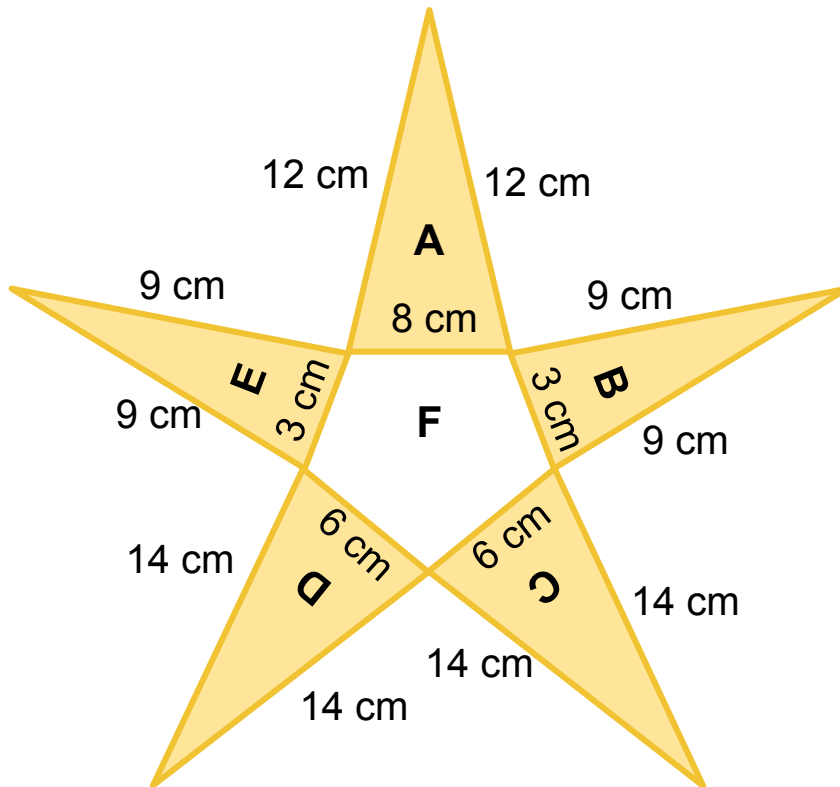
4. _____



THE GUIDING STAR

G3-G4
Basic

Imagine that this is the star that directed Mary and Joseph to Bethlehem during their journey. Identify the perimeters of the shapes being asked below.



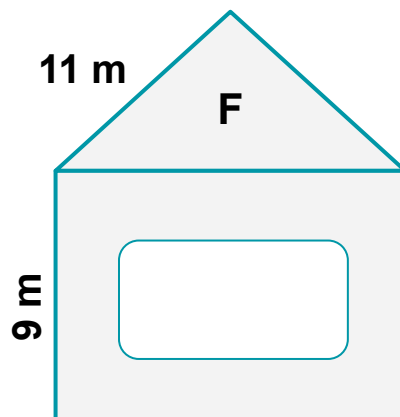
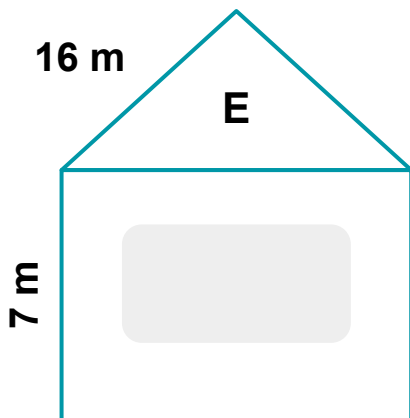
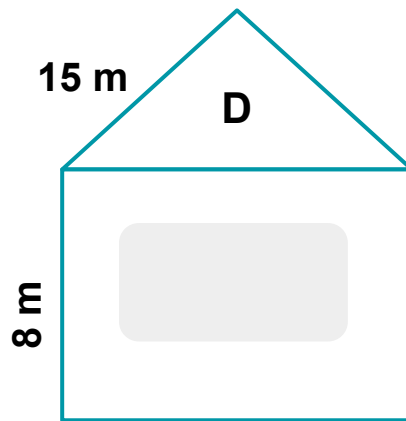
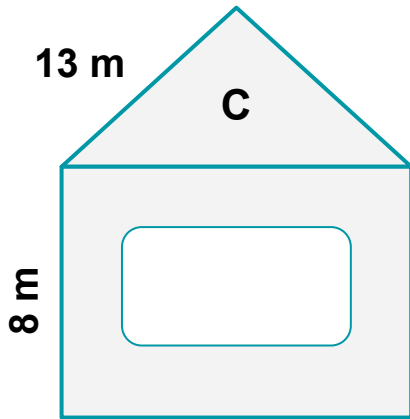
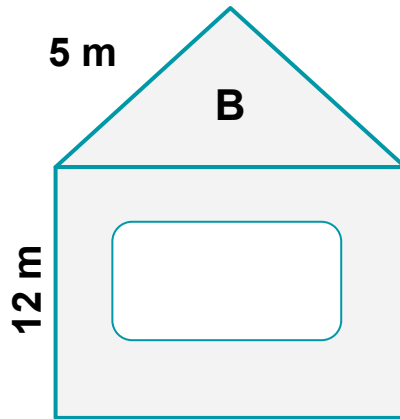
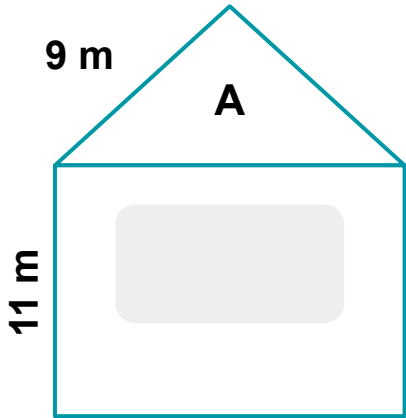
What is the perimeter of A?	
What is the perimeter of D?	
What is the perimeter of B?	
Which has the same perimeter with E?	
What is the perimeter of F?	



HOUSE OF PILGRIMS

G3-G4
Basic

During Las Posadas, there is a procession where a group, representing the Holy Family, will ask for lodging and will be refused many times until they reach the designated house for the pilgrims. For tonight, it will be the house with the biggest perimeter. Identify the perimeters of each houses.



Which of these houses has the biggest perimeter?

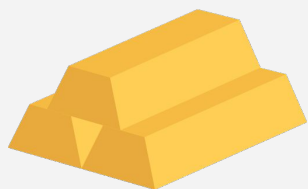


THE THREE KINGS

G3-G4
Basic

During the birth of Jesus, three magis or more popularly known as the “Three Kings” presented gifts to be offered. Identify which gifts were brought by each magis depending on the given descriptions.

17 m



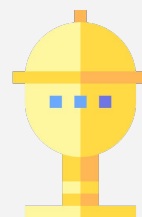
GOLD

13 m



FRANKINCENSE

15 m



MYRRH

I placed my gift in a box with 52 cm perimeter. Which gift did I bring?

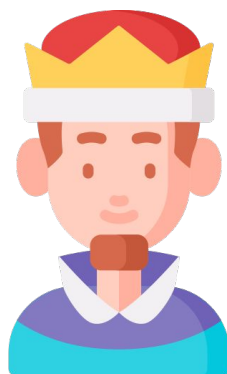
1. _____

My gift is inside a box with 68 cm perimeter. What did I bring?

2. _____

The gift that I brought is inside a box with 60 cm perimeter. Which is my gift?

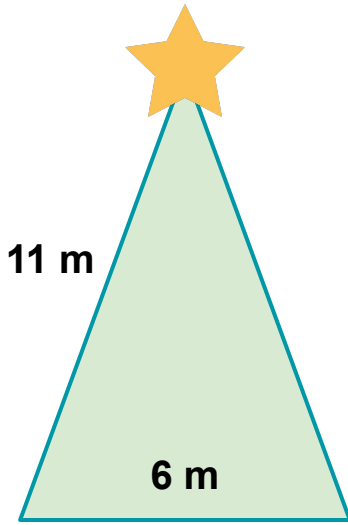
3. _____



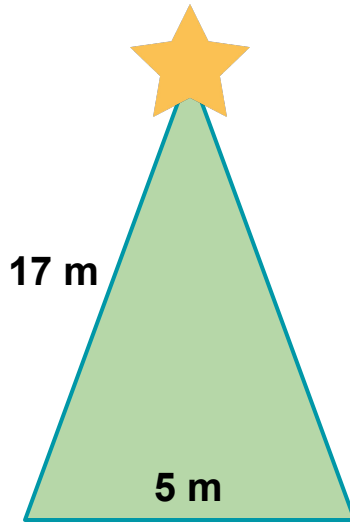
CHRISTMAS TREE

G3-G4
Basic

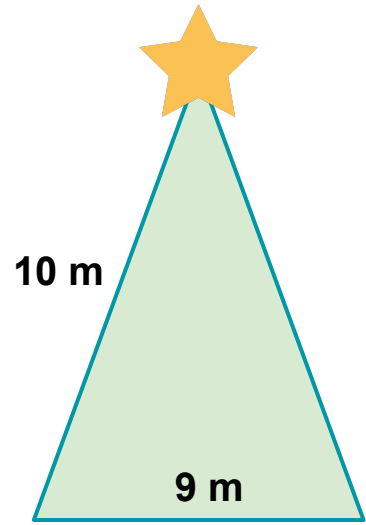
Celebrating Las Posadas means Christmas is just around the corner. Choose the best Christmas tree for your house. Find the perimeter of each, then arrange it from smallest to largest by placing the numbers (1-6) inside the tree.



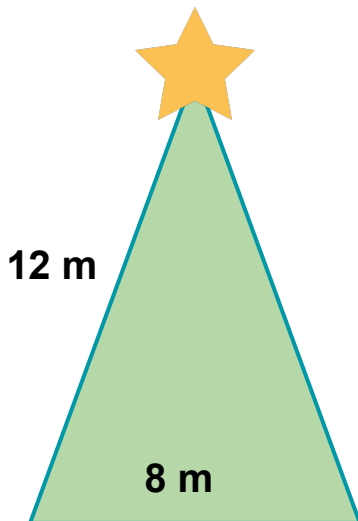
1.



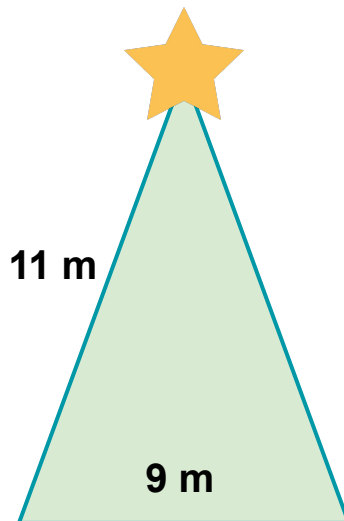
2.



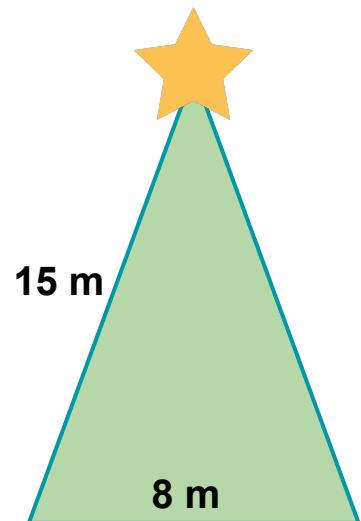
3.



4.



5.



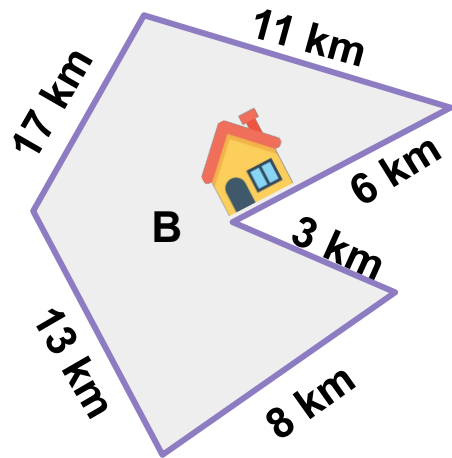
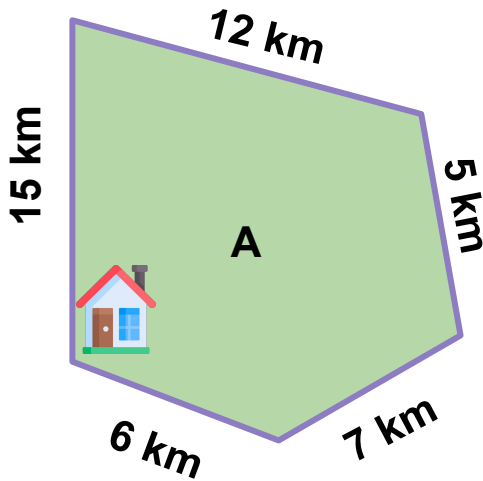
6.



CHOOSE WHICH HOUSE

G5-G6
Advanced

To identify which will be the first four pilgrim houses for Las Posadas, you need to identify the perimeters of each pathways below. They will be visiting the houses from smallest to largest perimeter.

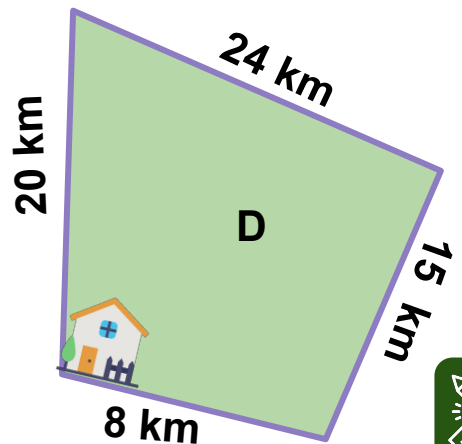
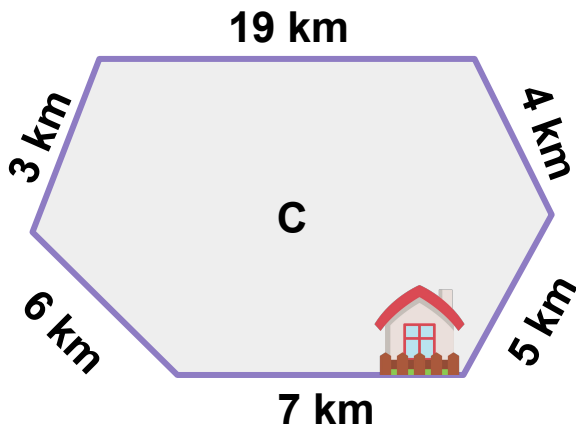


1st House:

2nd House:

3rd House:

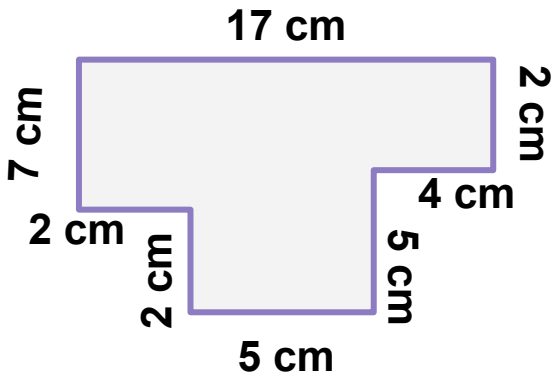
4th House:



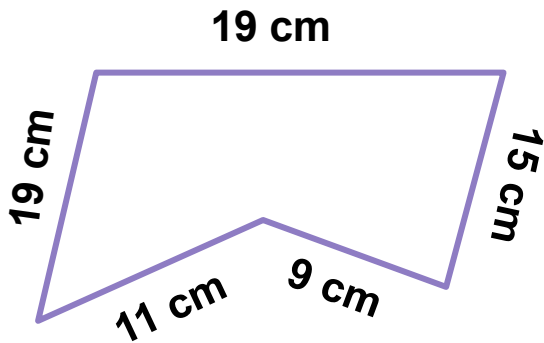
THE INSTRUMENTS

G5-G6
Advanced

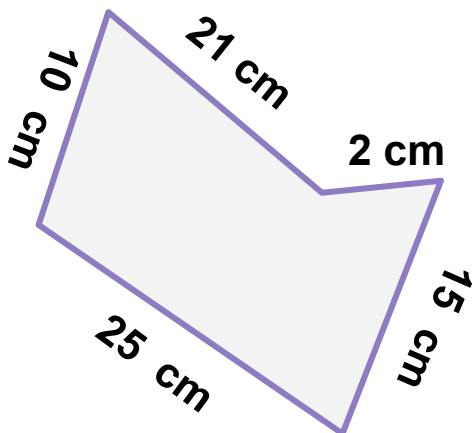
Tune your ukulele and rock your maracas cheerfully while you practice for Las Posadas. As you find the wrong tune, find also the wrong statements below and make it correct.



- I. The polygon has 8 sides.
- II. Two of its sides are measured at 5 cm.
- III. Its perimeter is 40 cm.
- IV. Three sides are measured at 3 cm



- I. No sides are equal.
- II. Two of its sides are equal.
- III. Its perimeter is 73 cm.
- IV. The polygon has 5 sides.



- I. Its perimeter is 73 cm.
- II. The sum of its three sides is the measurement of its longest side.
- III. No sides are equal.
- IV. It has 5 sides.



EVENT PREPARATIONS

G5-G6
Advanced

The participants of the procession wants to know more about the pilgrim houses that they will be visiting as part of their preparations. Can you answer their questions below?



I will be playing the role of Mary during the procession. What is the perimeter of the backyard with 8 sides? 3 sides are measured at 27 m, 2 sides are at 10 m, and the remaining 3 sides are twice as long as 10 m.

I will be playing the role of Joseph for the procession. The second house has a backyard with 5 sides. 3 sides are measured half of 24 m, while 2 sides are measured at 16 m. What is the perimeter?



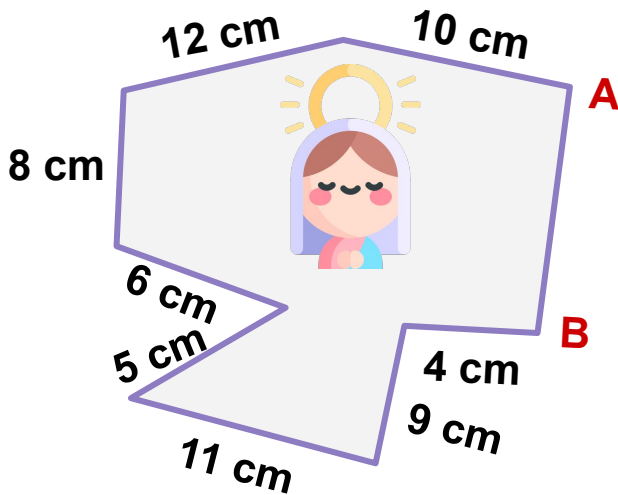
We will sing during the procession. The last house has a backyard with 6 sides. Half of the sides are measured at 30 cm, and the other half at 25 cm. What is the perimeter?



HEROD'S QUEST

G5-G6
Advanced

King Herod was threatened because a new king will be born. He ordered all baby boys to be killed. Help save the Holy Family as you find the missing lengths of the polygons below.

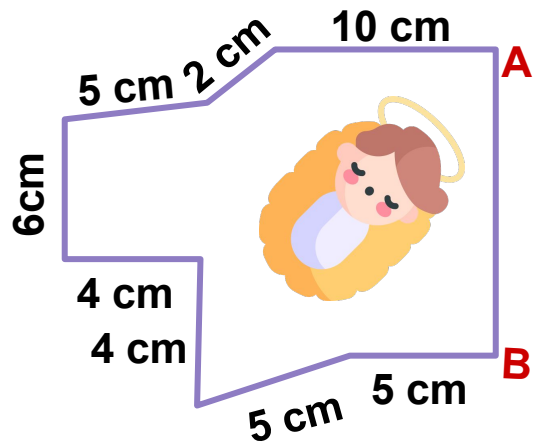


The perimeter is 72 cm.

What is the length of AB?

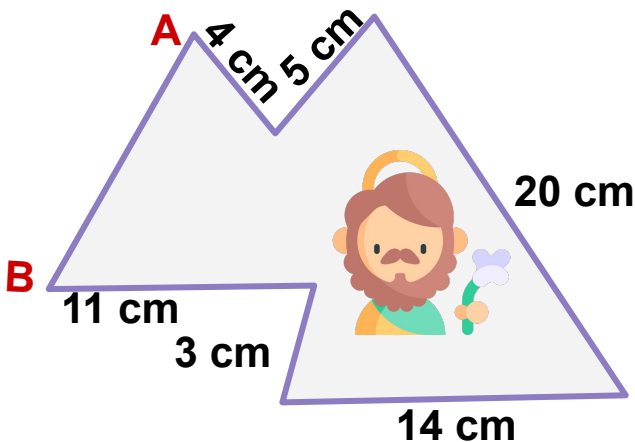
The perimeter is 56 cm.

What is the length of AB?



The perimeter is 70 cm.

What is the length of AB?

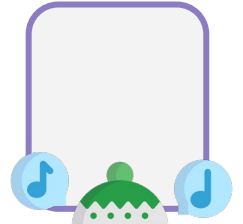


SONG PRACTICE

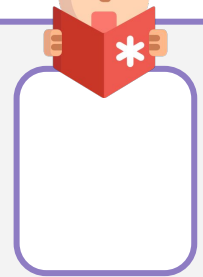
G5-G6
Advanced

Las Posadas is nearing. Practice the songs that you will be singing for the procession. Before practicing, make sure to answer the questions below.

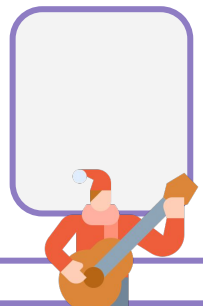
An irregular polygon has 7 sides with measures of 20 cm, 17 cm, 13 cm, 10 cm, 5 cm, 11 cm, and 7 cm.
What is its perimeter?



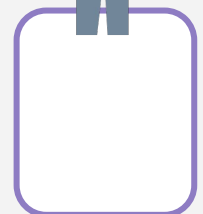
A polygon has 87 m perimeter. It has 6 sides with measures of 8 m, 21 m, 14 m, 9 m and 7 m.
Find the missing measurement.



An irregular polygon has 5 sides with measures of 19 cm, 8 cm, 13 cm, 12 cm, and 6 cm.
What is its perimeter?



A polygon has 61 m perimeter. It has 4 sides with measures of 27 m, 17 m, and 7 m
Find the missing measurement.



ANSWER GUIDE

Activity 1

1. 80 cm 2. 51 cm 3. 56 cm 4. 50 cm

Activity 2

1. 32 cm 2. 34 cm 3. 21 cm 4. B 5. 26 cm

Activity 3

A = 58 cm; B = 44 cm; C = 68 cm; D = 76 cm; E = 78 cm;
F = 62 cm Biggest house: E

Activity 4

1. Frankincense 2. Gold 3. Myrrh

Activity 5

1. 28 m (1) 2. 39 m (6) 3. 29 m (2) 4. 32 m (4)
5. 31 m (3) 6. 38 m (5)

Activity 6

A = 45 km; B = 58 km; C = 44 km; D = 67 km
1st: C 2nd: A 3rd: B 4th: D



ANSWER GUIDE

Activity 7

1. III - 42 cm 2. I - 2 sides 3. II - 2 sides

Activity 8

1. 161 m 2. 68 m 3. 165 cm

Activity 9

1. 7 cm 2. 15 cm 3. 13 cm

Activity 10

1. 78 cm 2. 28 m 3. 58 cm 4. 10 m



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