



2nd
Basic

3rd
Advanced

Helping With Math

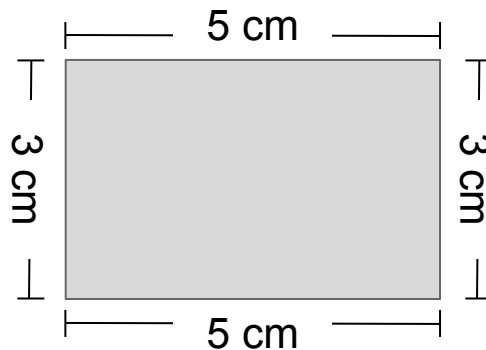
USA
GRADES

Measuring Perimeter

Suitable for students
aged 6-8



This pack is suitable for learners aged 6-8 years old or 2nd to 3rd graders (USA). The content covers fact files and relevant basic and advanced activities involving measuring perimeter.



Perimeter is the measurement of the total length of the sides of a given shape or polygon.

When we want to measure the perimeter of a shape, all we need to do is to add the length of all the sides.

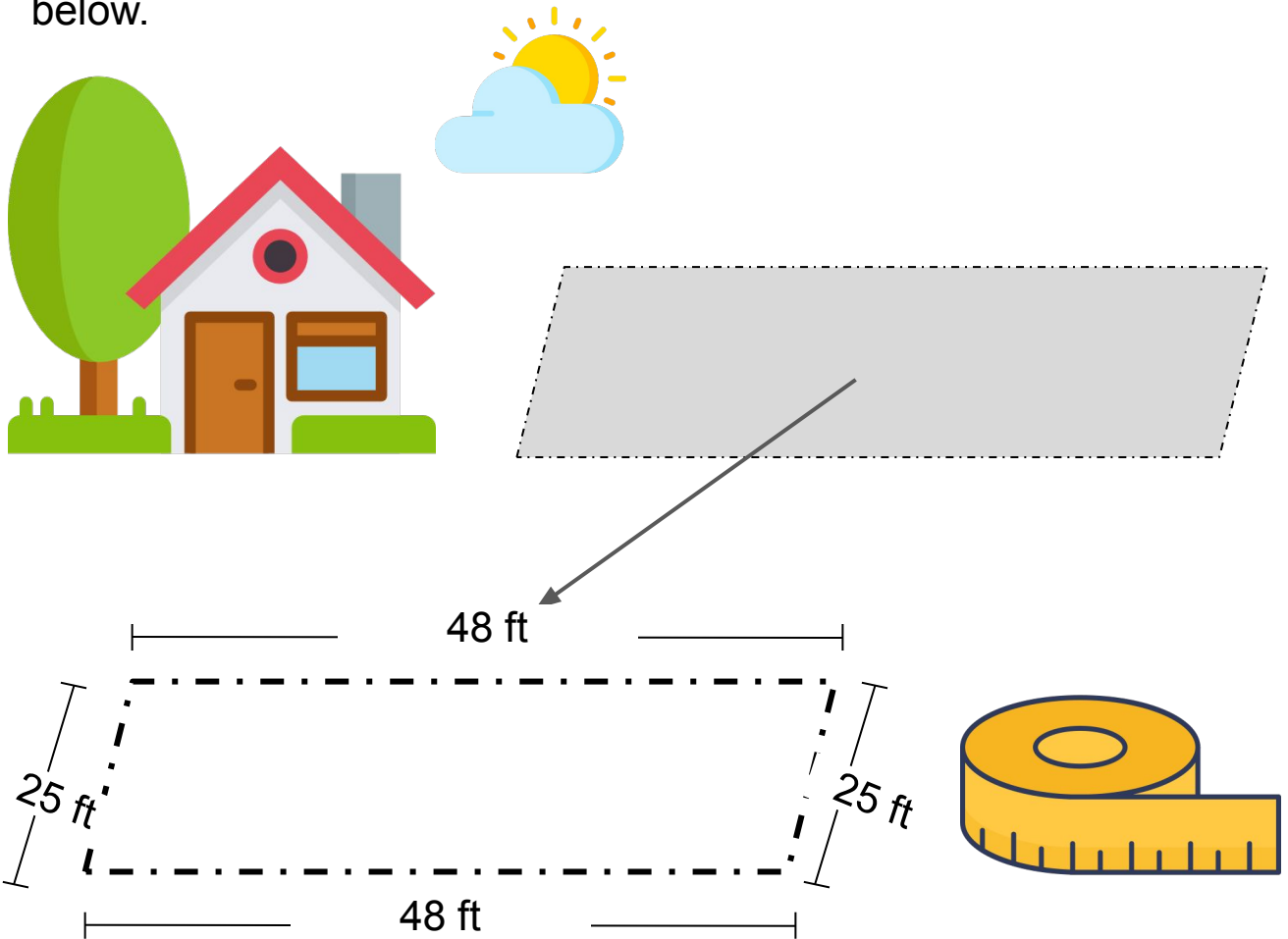
Where can we apply the concept of perimeter in life?

- Perimeter is very useful in construction and engineering industries.
- Measuring the accurate perimeter of lands, fence, house lot, etc is important to know the amount of materials needed for the construction of it.



ILLUSTRATIVE EXAMPLES

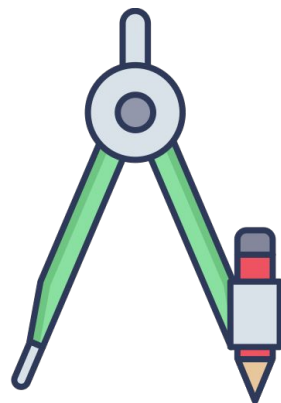
Engineer Dwight needs to calculate the length of wire needed to enclose the idle lot of his neighborhood. Refer to the illustration below.



To compute for the perimeter, just add the length of each side.

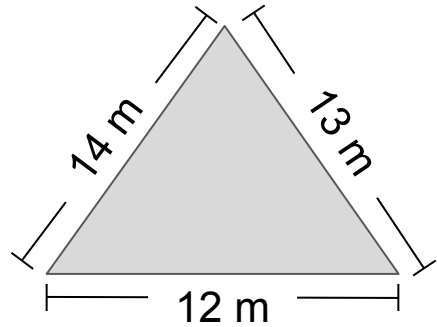
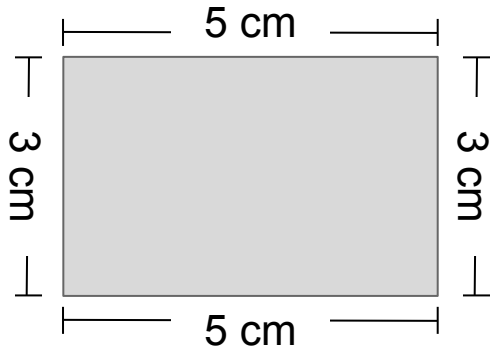
$$\text{Perimeter} = 48 + 48 + 25 + 25 = 146 \text{ ft.}$$

The perimeter of the idle lot is 146 ft.



PRACTICE EXERCISE

Compute for the perimeter of the following shapes below.



Working space:

The perimeter of a rectangular lot is 50 m. How long is the length of if if the width is 10 m?



TABLE OF ACTIVITIES

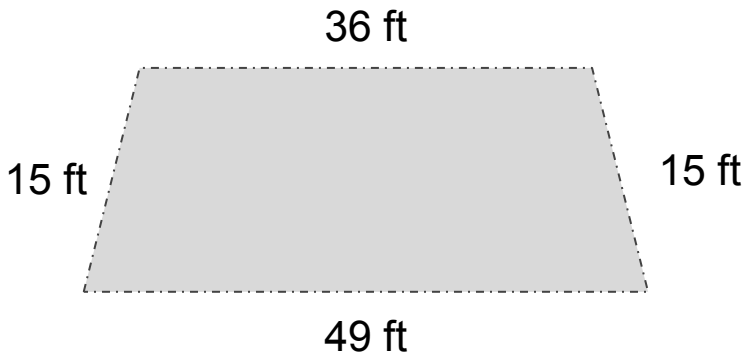
Ages 6-7 (Basic)		<u>2nd Grade</u>
1	Fencing the Idle Lot	
2	Perimeter Day	
3	Helping Engr. Dwight	
4	Got Some Measures	
5	Ruler Saves the Day	
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6	Sketch the Plan	
7	Draw, Measure, Cut	
8	Match the Lots	
9	Wired Task	
10	Who Got More, Engr.?	



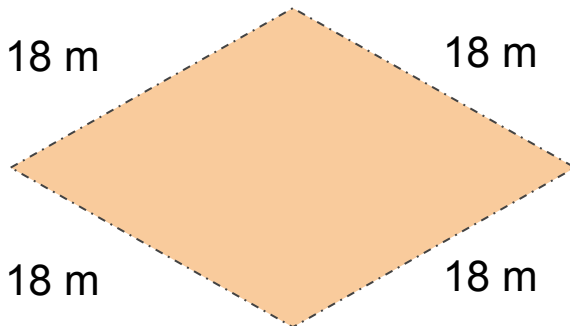
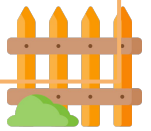
FENCING THE IDLE LOT

G2
Advanced

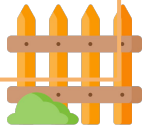
The engineering department is in-charge to put fence on idle lots in the village. Will you help them identify the length of the fence needed?



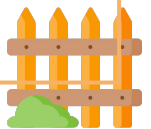
Solution:



Solution:



Solution:

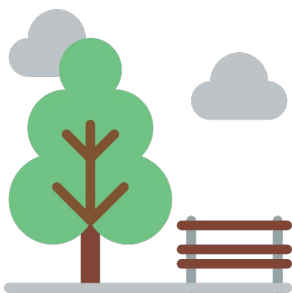


PERIMETER DAY

G2
Advanced

It's perimeter day for Engr. Dwight's team. It means that his staff are tasked to go outside and measure the land listed on their board. See the list below and use your understanding of perimeter to assist the team.

1. The lot at the center of the town's park.



The sides of the lot measure 23 yards, 17 yards, 20 yards, and 14 yards, respectively.

2. The grass area near Tim's Bakeshop

The sides of the grass area measure 34 ft, 21 ft, 18 ft, and 14 ft, respectively.



3. The parking lot beside the grocery store.



The sides of the parking lot measure 12 m, 36 m, 12 m, and 36 m, respectively.

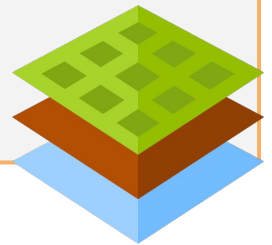


HELPING ENGR. DWIGHT

G2
Advanced

Help Engr. Dwight to come up with a blue print of the dimensions of the lot. Sketch the given lot shape and label its dimensions.

1. The idle lot is a square-shaped land whose each side measures 48 yards.



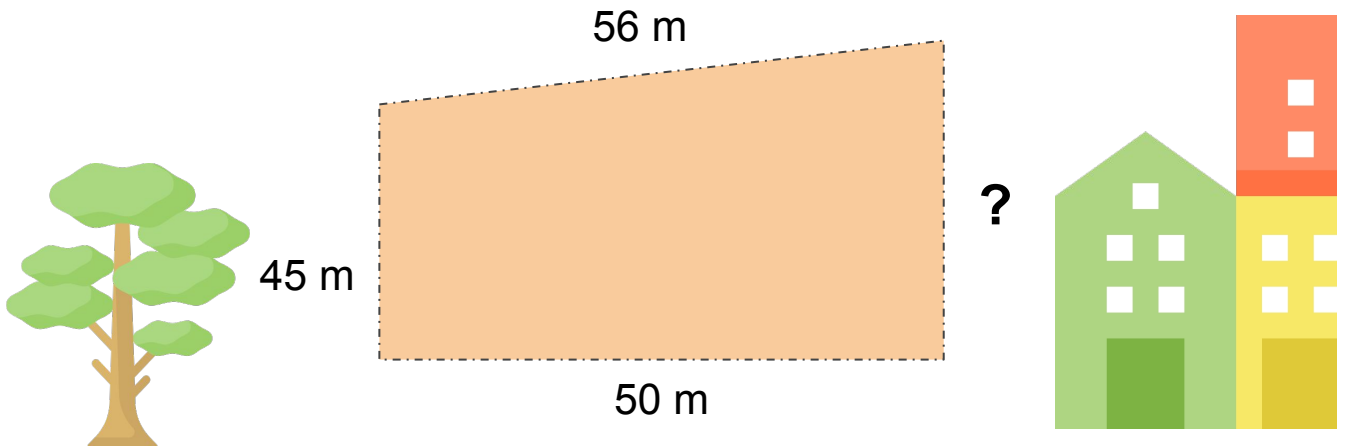
2. The pentagon-shaped ground has the following dimensions: 20 m, 25 m, 28 m, 20 m, and 25 m, respectively.



GOT SOME MEASURES

G2
Advanced

Engr. Dwight and his team are working on a new project. They need to construct a new establishment with the given perimeter. Help them solve their problem.



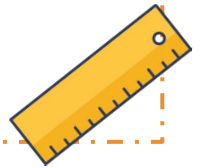
What is the measurement of the unknown length if the perimeter is 198 meters? Explain the steps on how you obtained your answer.



RULER SAVES THE DAY

G2
Advanced

Engr. Weiss is working with Engr. Dwight. According to Weiss, he needs to come up with the drawing of a hexagon and label its dimensions. Find out the description given by Engr. Weiss.



Draw the largest hexagon that you can make given the space above. After that, measure the shape's length using your own ruler. Inside the hexagon, write the perimeter.

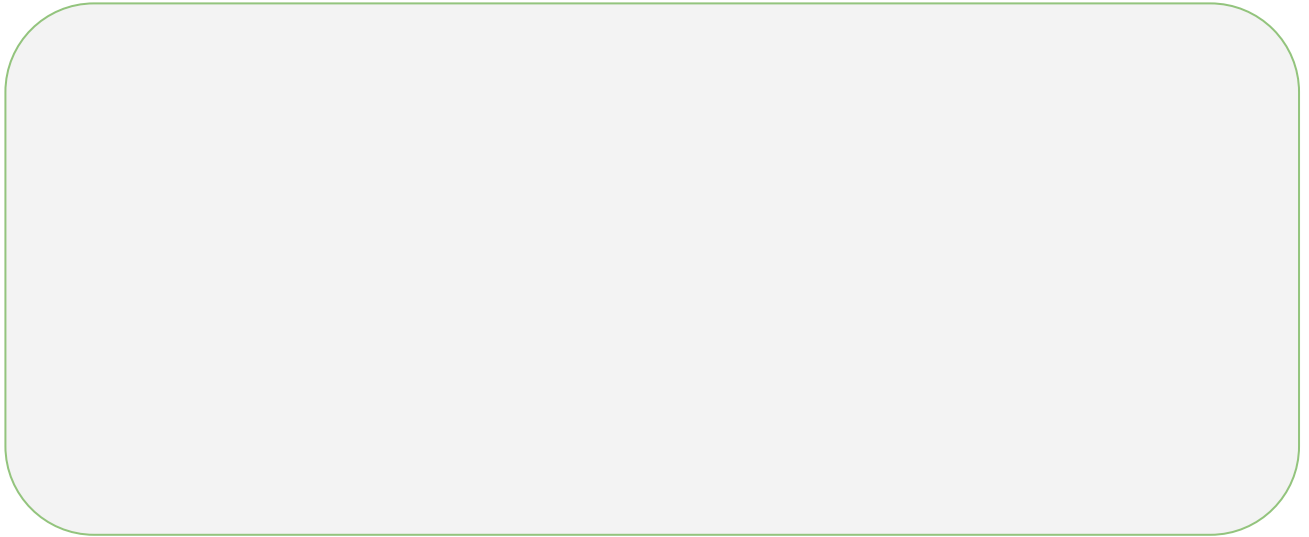


SKETCH THE PLAN

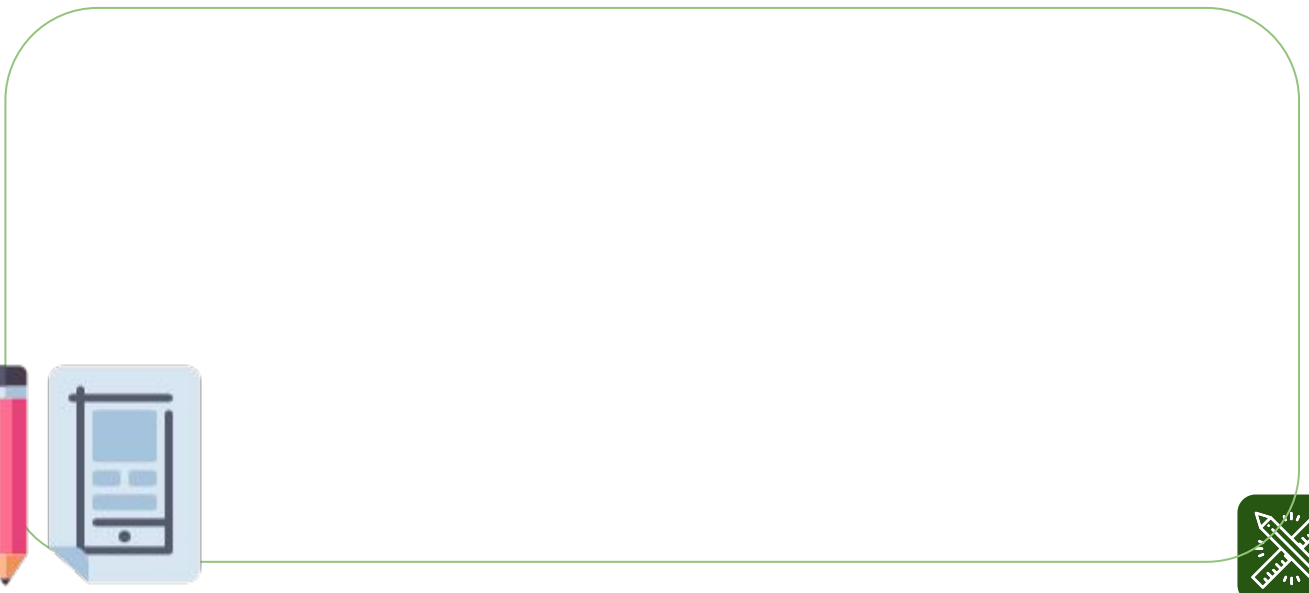
G3
Basic

Present a new blueprint to Engr. Weiss using the following dimensions. Sketch the shape and label it with the given dimensions.

1. A blueprint with a rectangle shaped lot whose length is 12 cm and width is $6 \frac{1}{2}$ cm.



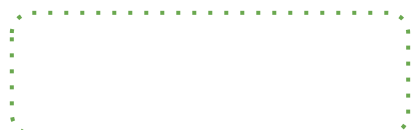
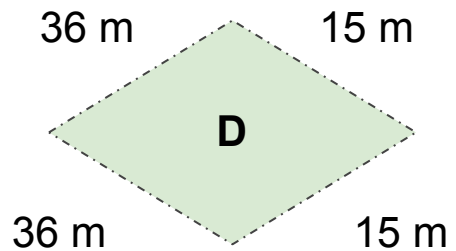
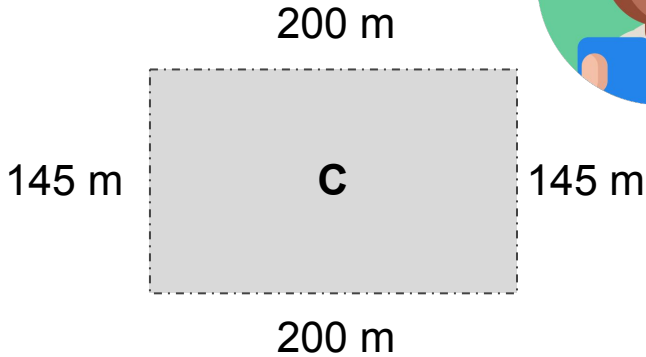
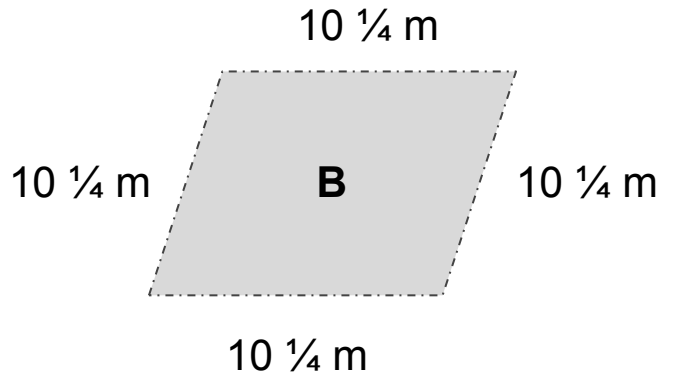
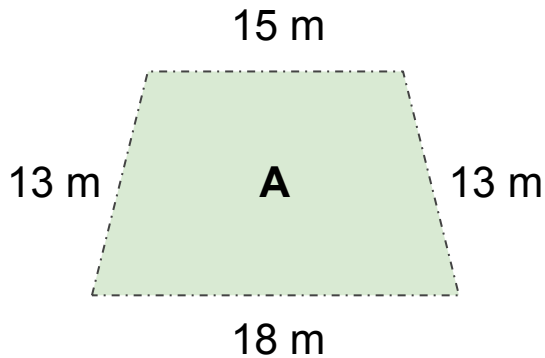
-
2. Compute for the perimeter and convert it to mm.



MATCH THE LOTS

G3
Basic

The staff has to put labels on the following illustrations of lots. Help them match the correct perimeter with the drawn illustration. Cut and paste your answer from the choices below.



41 meters

102 meters

490 meters

44 meters

590 cm

57 meters



DRAW, MEASURE, CUT

G3

Basic

As an engineer, one of your tasks is to make a blueprint. This will help you visualize the project more. Be like an engineer in this activity by creating your own plate.

1. On a separate paper, construct a rectangle whose length is 8 cm and width is 3.5 cm. The rectangle must be in vertical orientation.
2. Extend the upper portion by creating a square. At the bottom, draw a triangle whose base is 5.5 cm.
3. Measure the perimeter of your work. Cut and paste it here with proper labels.

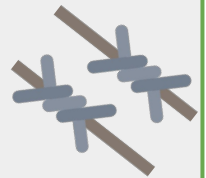


WIRED TASK

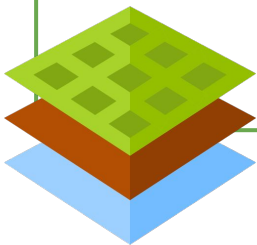
G3
Basic

Engr. Weiss and his team are about to enclose some idle lots with barbed wires. Use your understanding of perimeter to help them solve their problems.

1. An idle lot is a trapezoid-shaped land. Its dimensions are the following: 30 m, 45 m, 29 m and 310 cm. Sketch the shape with its dimensions and find the length of the barbed wires that they need to enclose the lot.



2. They need to enclose a lot with the following dimensions: 19 ft, 14 ft, 15 ft, 16 ft, and 4 yards. Is a set of 80-ft barbed wire enough to enclose it? Explain your answer.



WHO GOT MORE, ENGR.?

G3
Basic

Engr. Dwight's team is divided into three groups. Each of them is given 500 in of wire. Who among them will get an excess length of wire given the dimensions of the lot below. Find it out.

Team A got a square lot whose side measures 12 ft.

Team B got a rectangular lot whose length and width is 13 yards and 11 yards, respectively.

Team C got a triangular lot whose dimensions are 8 ft, 12 yards and 45 inches.

Your answer:



ANSWER GUIDE

Activity 1

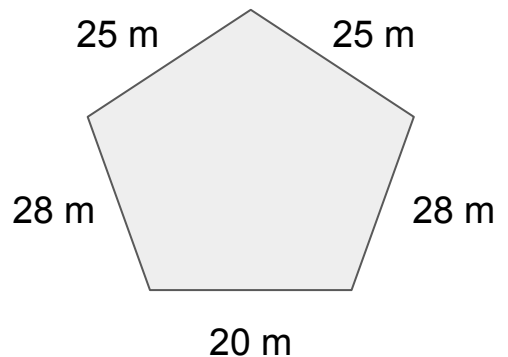
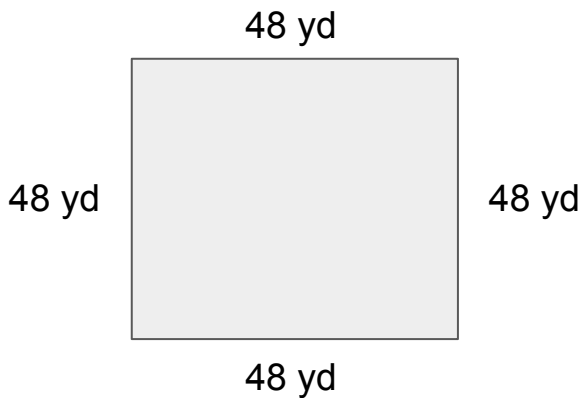
1. 115 ft 2. 72 m 3. 164 m

Activity 2

1. 74 yd 2. 87 ft 3. 96 m

Activity 3

1. 192 yd 2. 126 m



Activity 4

To get the answer, add all the given sides. The sum is 151 m. Since the perimeter is 198 m, subtract 151 m from it. Thus the answer is 47 m.



ANSWER GUIDE

Activity 5

Answers may vary.

Activity 6



The perimeter is 37 cm or 370 mm.

Activity 7

A. 590 cm B. 44 meters C. 490 meters D. 102 meters

Activity 9

- $30 \text{ m} + 45 \text{ m} + 29 \text{ m} + 31 \text{ m} = 135 \text{ m}$
 - $19 \text{ ft} + 14 \text{ ft} + 15 \text{ ft} + 16 \text{ ft} + 12 \text{ ft} = 76 \text{ ft}.$
- Yes, the 80-ft barbed wire is enough to enclose the lot.



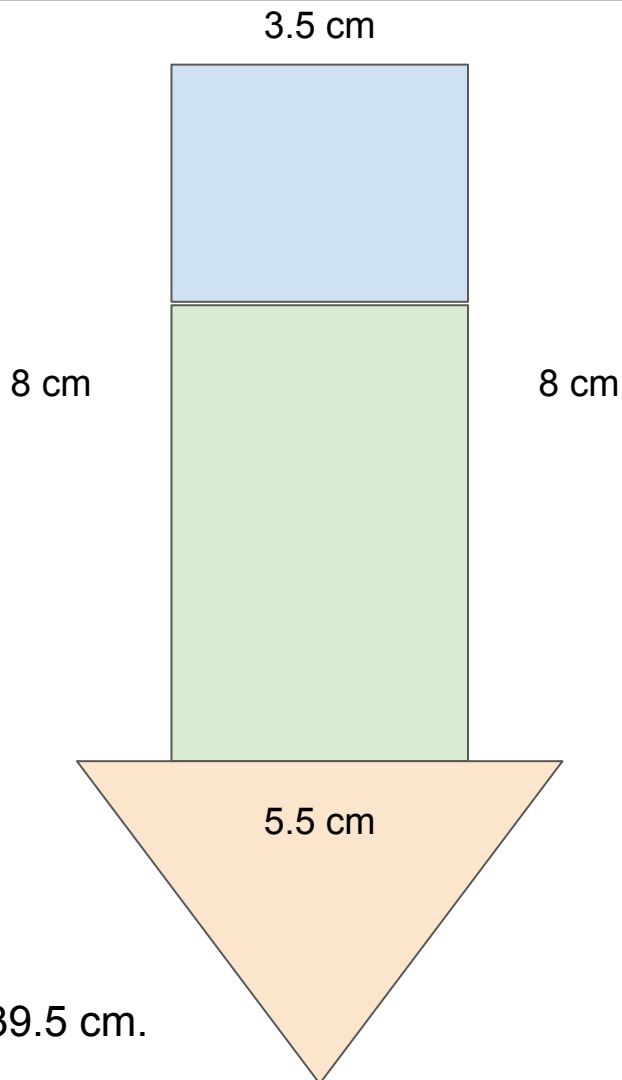
ANSWER GUIDE

Activity 10

1. $12 \text{ ft} + 12 \text{ ft} + 12 \text{ ft} + 12 \text{ ft} = 48 \text{ ft}$ or 576 in, not enough
2. $13 \text{ yards} + 13 \text{ yards} + 11 \text{ yards} + 11 \text{ yards} = 48 \text{ yards}$ or 1728 inches, not enough
3. $96 + 576 + 45 \text{ inches} = 717 \text{ in}$, not enough

Thus, none of the team got more wires to use.

Activity 8



The perimeter is 39.5 cm.



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