

Helping With Math USA GRADES

Perimeter of Rhombus

Suitable for students aged 7-9

3rd

Advanced

This pack is suitable for learners aged 7-9 years old or 3rd to 4th grades (USA). The content covers fact files and relevant basic and advanced activities involving perimeter of rhombus.

Rhombus

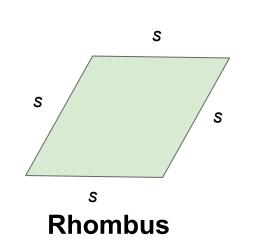


Labor Day is a federal holiday that aims to commemorate the historic fights and triumphs made by workers and labor movements. It is observed in US and Canada every first Monday of September to recognize the contribution of the laborers in the society through parades, fireworks displays, and other public gatherings. Meanwhile, many countries have a similar observance called May Day which usually occurs on May 1.

- Rhombus comes from the Greek word rhómbos which means a "spinning top.
- It is a flat shape with four equal straight sides.
- Rhombus is a type of parallelogram whose opposite sides are parallel.
- The measurement of its opposite angles are equal.



PERIMETER OF RHOMBUS



- Perimeter is the total distance around the shape's edges/sides.
- Since the sides of a rhombus are all equal in measure, its perimeter is:

ILLUSTRATIVE EXAMPLES

1. Find the perimeter of a rhombus whose side length is 15 cm.

Let s = 15 cm

$$P = s + s + s + s \text{ or } P = 4s$$

$$P = 15 \text{ cm} + 15 \text{ cm} + 15 \text{ cm} + 15 \text{ cm}$$

$$P = 60 \text{ cm}$$
The perimeter of the given rhombus is 60 cm.

2. The perimeter of a given rhombus is 75 ft. how long is its side in inches?

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Let P = 75 ft

75 = 4s

75 \div 4 = s

s = 18.75 ft

We all know that 1 ft = 12 inches. Thus,

18.75 \times 12 = 225 in

The side length of the given rhombus is 225 in.
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TABLE OF ACTIVITIES

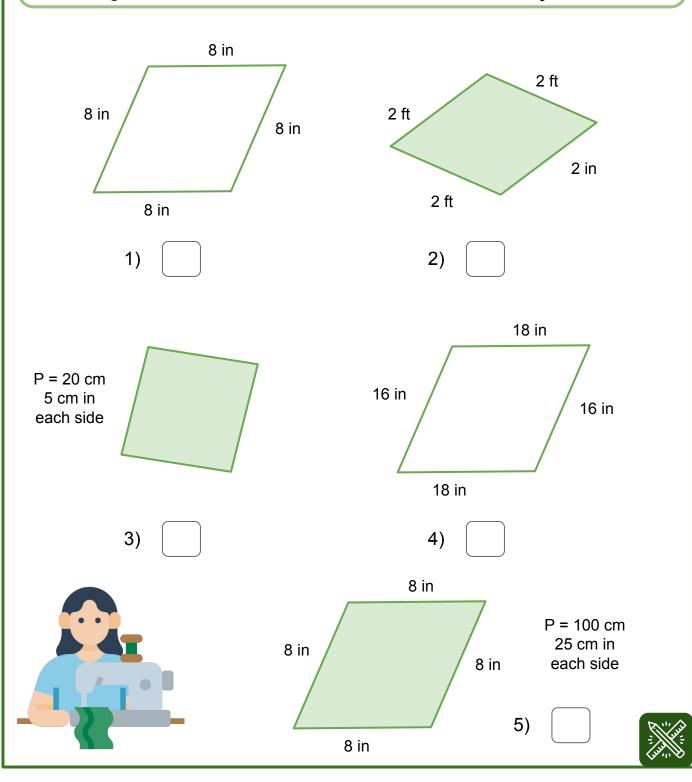
	Ages 7-8 (Basic)	<u>3rd Grade</u>		
1	Seamstress' Dedication			
2	Quality Control Worker			
3	The Construction Area			
4	Work for Today			
5	Some Work Problems			
Ages 8-9 (Advanced) <u>4th Grade</u>				
6	The Baker's Dilemma			
7	Labor Day Posters			
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SEAMSTRESS' DEDICATION

G3

Eva has been working as a seamstress for five years now. Her next project is to make rhombic handkerchiefs. Which among the following fabric cuts are rhombuses? Put a check on your answer.



QUALITY CONTROL WORKER

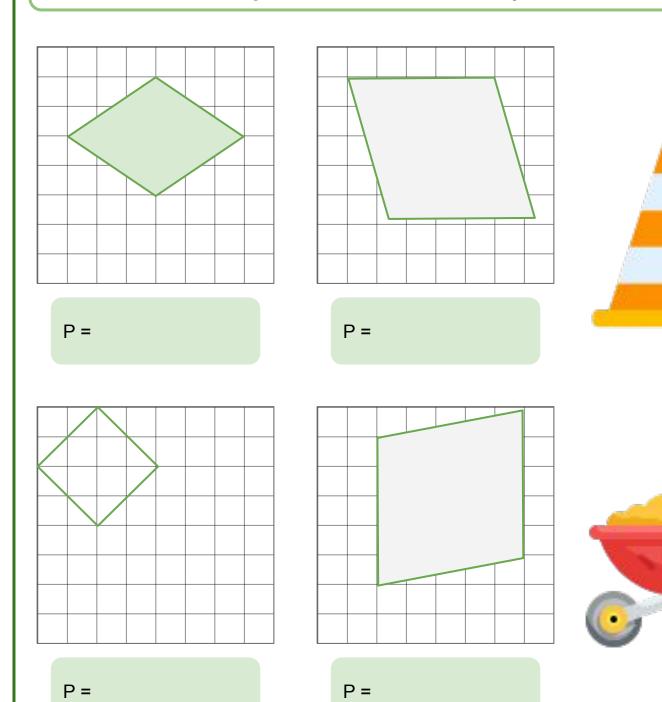
G3 Basic

Ben is a quality control worker in a garment factory. For today's work, he needs to make sure that each product must follow the factory's standards. The following are the statements of his co-worker. Verify if they are correct by writing PASSED or FAILED.

1.	The perimeter of a rhombus is 72 inches if its side length is 12 in.	
2.	The side length of a rhombic figure is 4 ft. Its perimeter is 16 ft.	
3.	If a rhombus has a side length of 50 cm, its perimeter is equal to 200 cm.	
4.	A larger rhombus' side is 10 in while the smaller one is 8 in. Their perimeter has an 8-inch gap.	
5.	The perimeter of a rhombus is 80 inches if its side length is 15 yd.	V X

THE CONSTRUCTION AREA

Nick is working on a construction site. The layout of the lot is rhombic. Refer to the given below to solve for its perimeter.



G3

WORK FOR TODAY



Robert is a part-timer carpenter. He is about to create bulk orders of rhombic boxes. These boxes come in different sizes. Help him to draw a scale drawing of each box' layout and find its perimeter. See the details below. You may use an extra sheet if needed.



Rhombic box sizes: 1 cm is to 2 inches

- Small side length is 10 in
- Medium side length is 14 in
- Large side length is 18 in
- Extra Large side length is 24 in



SOME WORK PROBLEMS

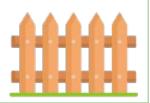
Below are some work-related problems that can be answered using the perimeter of a rhombus. Draw the dimension of each rhombus.

1. James, a full-time carpenter, would like to create a wooden organizer in the shape of a rhombus. If the target perimeter of the rhombic organizer is 100 in, what must be the length of the wood that he needs?

2. Julia has been a seamstress for almost a decade. A rhombic table cloth is one of the orders that she received. If she is to put a special outline on the table cloth, how long is the needed outline if the side length of the cloth is 5 yards?



3. Mike and his team need to enclose a rhombus-shaped idle lot with a fence. The length of the lot is 250 m. how long is the fence that they need?





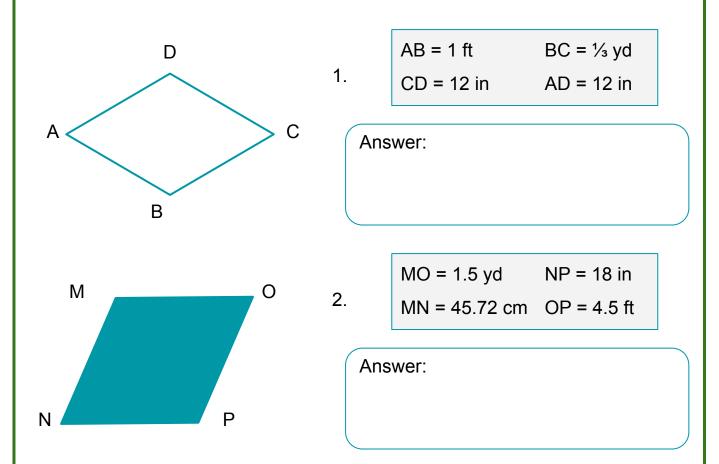




THE BAKER'S DILEMMA



Rick is one of the popular bakers in town. Today, he would like to make rhombic pastries. However, he is unsure if the baking molds are really rhombus in shape. The dimensions of the tools are given below. Write YES if it is a rhombus, otherwise NO and explain why.





Tricky question:

Which of the two statements is TRUE?

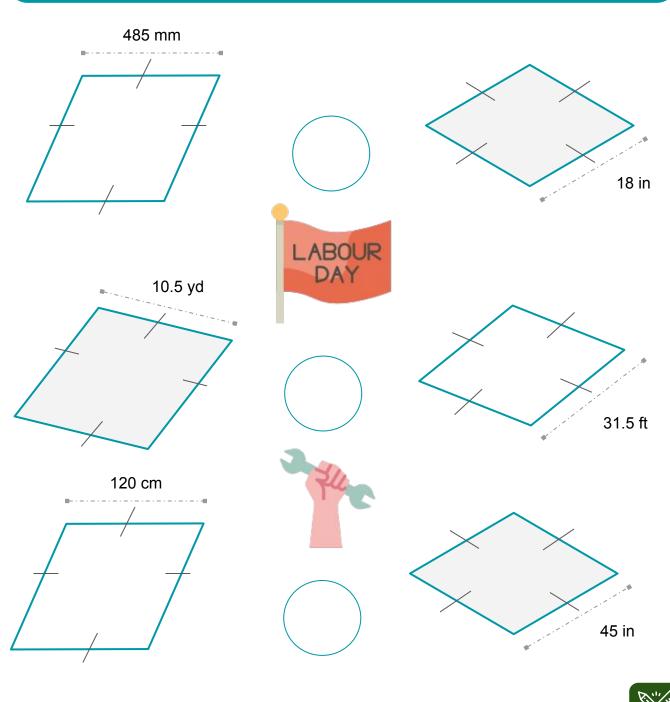
- □ A square is a rhombus.
- A rhombus is a square.



LABOR DAY POSTERS



Labor Day is usually celebrated through picnics, family gatherings, and parades. The following are posters to be used for the celebration of Labor Day. Use <, >, or = to compare the perimeter of the rhombic posters.



Note: Drawings are not scaled.

REST DAY IS BBQ DAY!



Robert, Julia, and James celebrate Labor Day by having a BBQ day. Together with their families, they set up a BBQ picnic in their backyard, where they use rhombic tables to eat. Using the dimensions of each rhombic table, arrange tables 1 to 4 in terms of decreasing perimeter.

1. Side length: 65 in

2. Side length: 4.75 ft

3. Side length: 900 cm

4. Side length: 9 yd

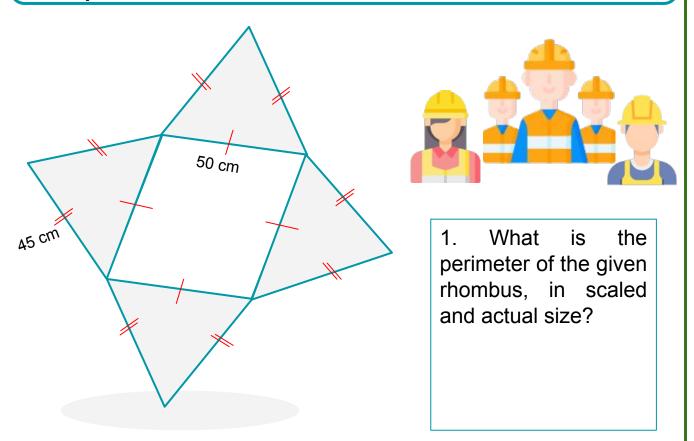


Table arrangement in decreasing order:



MULTI-SHAPED LOT PROJECT

A group of workers are in-charge of this multi-shaped lot project. The sketch below is the scaled drawing of the lot where each cm corresponds to 5 m in actual size.



- 2. What is the perimeter of each triangle, in scaled and actual size?
- 3. Compute for the total perimeter of all polygons in scaled and actual size.



dvanced

SPECIALLY-MADE WOODEN DECORS



Robert is one of the most skilled workers in town. He is about to make wooden rhombic decors. Given the desired perimeter, solve for the side length of each rhombus.

1. P = 50 in	2. P = 380 cm	3. P = 48.50 in
4. P = 273.20 cm	5. P = 98 in	6. P = 7.64 ft (express your answer in inches)
7. P = 600 cm (express your answer in mm)	8. P = 350 in (express your answer in yd)	9. P = 100 in





ANSWER GUIDE Activity 1 The rhombus are item number 1, 3, and 5 Activity 2 1. FAILED 2. PASSED 3. PASSED 4. PASSED 5. FAILED **Activity 3** 1. P = 12 units 2. P = 20 units 3. P = 8 units 4. P = 20 units **Activity 4** Check the dimension and measurement of each drawing. For their perimeter, small (40 in), medium (56 in), large (72 in), and extra large (96 in). **Activity 5** 1. 25 in 2. 20 yards 3.1000 m **Activity 6** 1. Yes, the polygon is a rhombus because all of its sides are equal. 2. No, because the side lengths vary. Tricky question: A square is a rhombus.

ANSWER GUIDE

Activity 7

- 1. 194 cm/1940 mm > 45.72 cm/18 in
- 2. 42 yd = 42 yd
- 3. 480 cm > 457.2 cm

Activity 8

1. 260 in2. 228 in3. 1417.32 in4. 1296 inTable arrangement: 3, 4, 1, 2

Activity 9

- 1. 200 cm in scaled size, and 1000 cm in actual size
- 2. 140 cm in scaled size, and 700 cm in actual size
- 3. 760 cm in scaled size, and 3800 cm in actual size

Activity 10

1) 12.5 in	2) 95 cm	3) 12.125 in	4) 68.3 cm
5) 24.5 in	6) 22.92 in	7) 1500 mm	8) 2.43 yd
9) 25 in			



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