Around or Not

Decide which sums measure the distance around a shape.

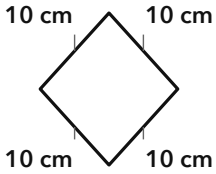
3.GSR.8.1 "Determine the perimeter of a polygon and explain that the perimeter represents the distance around a polygon. Solve problems involving perimeters of polygons."

NAME _____ DATE _____

PERIMETER

Use this when the addition includes the length of every outer side. The total is the perimeter, or distance around the shape.

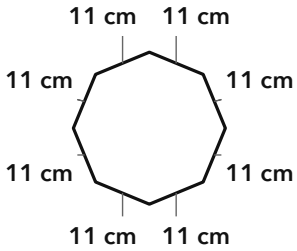
10 + 10 + 10 + 10 = 40 cm



NOT AROUND

Use this when an addition leaves out an outer side. It does not show the distance all the way around.

11 + 11 + 11 = 33 cm



1 SORT

8 items

For each figure, circle PERIMETER or NOT AROUND; in Part 2, choose two figures and explain whether the addition uses every labeled side length.

1.

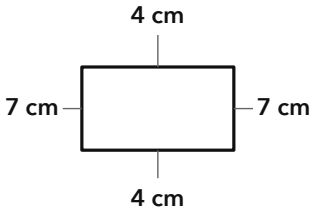


Figure 1: 4 + 7 + 4 + 7

PERIMETER NOT AROUND

2.

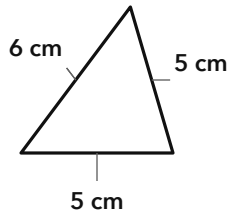


Figure 2: 5 + 5

PERIMETER NOT AROUND

3.

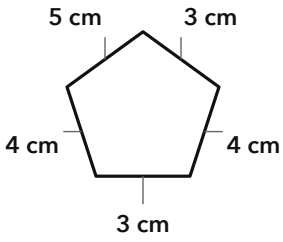


Figure 3: 3 + 4 + 3 + 4 + 5

PERIMETER NOT AROUND

4.

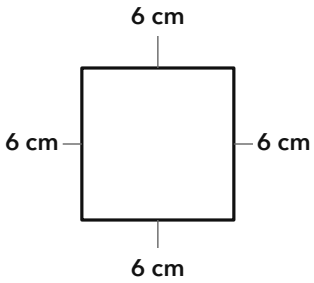


Figure 4: 6 + 6 + 6

PERIMETER NOT AROUND

5.

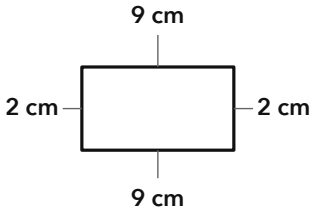


Figure 5: 9 + 2 + 9 + 2

PERIMETER NOT AROUND

6.

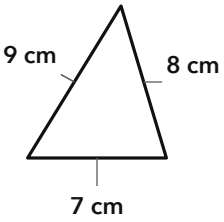


Figure 6: 7 + 8 + 9

PERIMETER NOT AROUND

7.

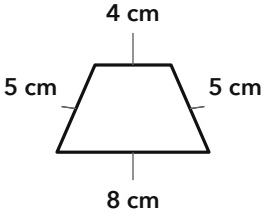


Figure 7 (trapezoid): 4 + 5 + 8

PERIMETER NOT AROUND

8.

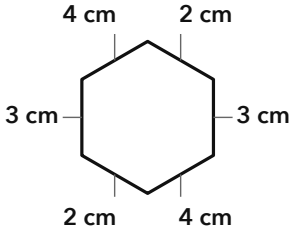


Figure 8: 2 + 3 + 4 + 2 + 3 + 4

PERIMETER NOT AROUND

2 PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write one new PERIMETER example and one new NOT AROUND example. Include side lengths and an addition sentence for each.

PERIMETER

NOT AROUND

CHALLENGE

A playground has five side lengths: 12 cm, 9 cm, 7 cm, 10 cm, and 8 cm. Find its perimeter, then write one sentence telling what the number means.

ANSWER KEY # Around or Not

GRADE 3 · 3.GSR.8.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1: 4 + 7 + 4 + 7 (rectangle)	**PERIMETER**	The addition includes all four side lengths.
2	Figure 2: 5 + 5 (triangle)	**NOT AROUND**	The 6 cm side is left out.
3	Figure 3: 3 + 4 + 3 + 4 + 5 (pentagon)	**PERIMETER**	The addition includes all five side lengths.
4	Figure 4: 6 + 6 + 6 (square)	**NOT AROUND**	One 6 cm side is left out.
5	Figure 5: 9 + 2 + 9 + 2 (rectangle)	**PERIMETER**	The addition includes all four side lengths.
6	Figure 6: 7 + 8 + 9 (triangle)	**PERIMETER**	The addition includes all three side lengths.
7	Figure 7 (trapezoid): 4 + 5 + 8 (polygon)	**NOT AROUND**	One 5 cm leg is left out.
8	Figure 8: 2 + 3 + 4 + 2 + 3 + 4 (hexagon)	**PERIMETER**	The addition includes all six side lengths.

PART 2 · PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **PERIMETER**: A triangle has sides 12 cm, 13 cm, and 14 cm. 12 + 13 + 14 = 39 cm.
- **NOT AROUND**: A quadrilateral has sides 15 cm, 16 cm, 15 cm, and 16 cm. 15 + 16 + 15 = 46 cm leaves out one side.

Challenge: 12 + 9 + 7 + 10 + 8 = 46 cm. The perimeter is 46 cm, so the distance around the playground is 46 cm.

Sort key: 1 PERIMETER, 2 NOT AROUND, 3 PERIMETER, 4 NOT AROUND, 5 PERIMETER, 6 PERIMETER, 7 NOT AROUND, 8 PERIMETER. For Part 2, accept explanations that name every side used or identify a missing side.