Square Side Check

Compare side lengths in millimeters, centimeters, and meters.

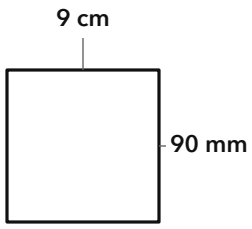
5.GM.3.4 "Apply the relationship between millimeters, centimeters, and meters to measure, convert, and compare objects to solve problems."

NAME _____ DATE _____

MATCHING LENGTHS

A square has four equal sides. These two labels name the same length when you convert them to the same unit.

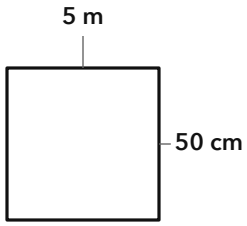
9 cm and 90 mm name the same side length.



CLASHING LENGTHS

These two labels name different lengths. They cannot both be correct labels for sides of the same square.

5 m and 50 cm do not name the same side length.



1 SORT

8 items

For each figure, circle MATCH or CLASH, then pick two figures for Part 2 and explain how you knew where they belong.

1.

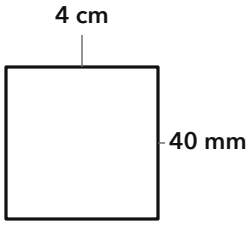


Figure 1

MATCH CLASH

2.

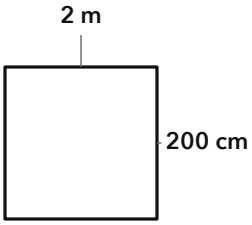


Figure 2

MATCH CLASH

3.

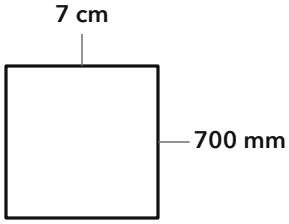


Figure 3

MATCH CLASH

4.

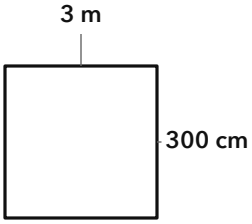


Figure 4

MATCH CLASH

5.

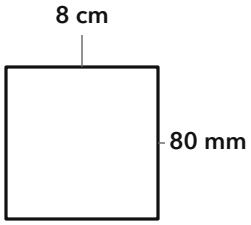


Figure 5

MATCH CLASH

6.

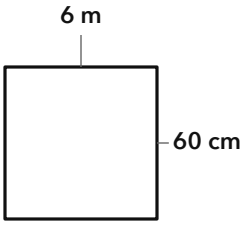


Figure 6

MATCH CLASH

7.

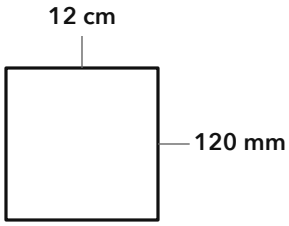


Figure 7

MATCH CLASH

8.

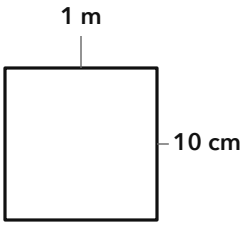


Figure 8

MATCH CLASH

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 two side labels for a new square in each category: one MATCH pair and one CLASH pair. Use different units within each pair.

MATCH

CLASH

CHALLENGE

Choose one CLASH figure. Change only its second side label to make a MATCH, then write an equation to prove it.

ANSWER KEY

Square Side Check

GRADE 5 · 5.GM.3.4

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**MATCH**	4 cm equals 40 mm.
2	Figure 2 (square)	**MATCH**	2 m equals 200 cm.
3	Figure 3 (square)	**CLASH**	7 cm equals 70 mm, not 700 mm.
4	Figure 4 (square)	**MATCH**	3 m equals 300 cm.
5	Figure 5 (square)	**MATCH**	8 cm equals 80 mm.
6	Figure 6 (square)	**CLASH**	6 m equals 600 cm, not 60 cm.
7	Figure 7 (square)	**MATCH**	12 cm equals 120 mm.
8	Figure 8 (square)	**CLASH**	1 m equals 100 cm, not 10 cm.

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)

- **MATCH**: 13 cm and 130 mm
- **CLASH**: 14 m and 140 cm

Challenge: Figure 3: Change 700 mm to 70 mm. 7 cm = 70 mm.

For Part 2, possible proofs are: Figure 1 matches because 4 cm = 40 mm; Figure 6 clashes because 6 m = 600 cm, not 60 cm.