Square Side Check

Can both labels fit the same square?

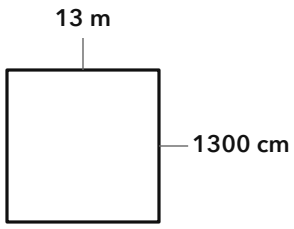
4.M.A.21 "Select and use an appropriate unit of measurement for a given attribute (length, mass, liquid volume, time) within one system of units: metric - km, m, cm; kg, g, l, ml; customary - lb, oz; time - hr, min, sec. a..."

NAME _____ DATE _____

SAME VALUE

A square has sides of equal length. These labels name the same length because 1 m = 100 cm.

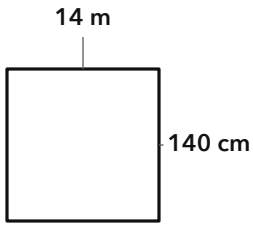
13 m = 1300 cm



DIFFERENT VALUES

These labels name different lengths, so they cannot both be correct for one square. Multiply the number of meters by 100 to check the centimeter label.

14 m is not 140 cm.



1 SORT

8 items

Circle SAME or DIFFERENT for each figure, then choose one of each and explain how you knew.

1.

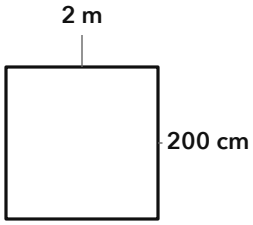


Figure 1

SAME **DIFFERENT**

2.

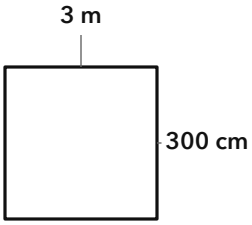


Figure 2

SAME **DIFFERENT**

3.

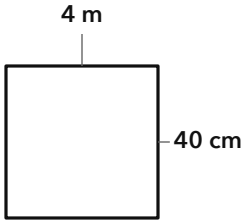


Figure 3

SAME **DIFFERENT**

4.

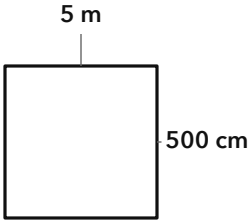


Figure 4

SAME **DIFFERENT**

5.

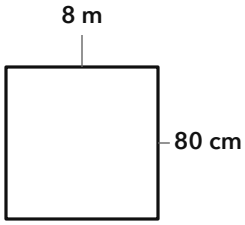


Figure 5

SAME **DIFFERENT**

6.

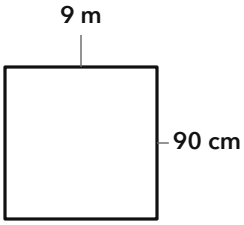


Figure 6

SAME **DIFFERENT**

7.

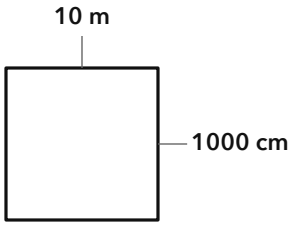


Figure 7

SAME **DIFFERENT**

8.

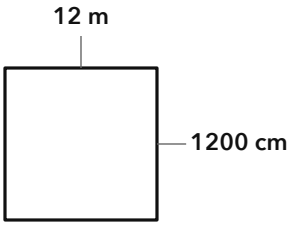


Figure 8

SAME **DIFFERENT**

2 PROVE IT

Explain your thinking

Choose one of each and explain how you knew.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write two new pairs of side labels for a square: one SAME pair and one DIFFERENT pair.

SAME _____

DIFFERENT _____

CHALLENGE

Choose a DIFFERENT figure, replace its centimeter label with a correct label, and write an equation to show your conversion.

ANSWER KEY

Square Side Check

GRADE 4 · 4.M.A.21

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**SAME**	2 m = 200 cm.
2	Figure 2 (square)	**SAME**	3 m = 300 cm.
3	Figure 3 (square)	**DIFFERENT**	4 m = 400 cm, not 40 cm.
4	Figure 4 (square)	**SAME**	5 m = 500 cm.
5	Figure 5 (square)	**DIFFERENT**	8 m = 800 cm, not 80 cm.
6	Figure 6 (square)	**DIFFERENT**	9 m = 900 cm, not 90 cm.
7	Figure 7 (square)	**SAME**	10 m = 1000 cm.
8	Figure 8 (square)	**SAME**	12 m = 1200 cm.

PART 2 · PROVE IT

Task: Choose one of each and explain how you knew.
Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **SAME**: 15 m and 1500 cm.
- **DIFFERENT**: 16 m and 160 cm.

Challenge: Figure 3: Replace 40 cm with 400 cm because 4 m = 400 cm.

For the explanations, accept any SAME and DIFFERENT figures supported by a correct meters-to-centimeters conversion. New examples must use meters and centimeters and fit their chosen categories.