

Cube Check

Part 2: Pick two figures and explain how you knew.

NY-5.MD.3.a "Recognize that a cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume."

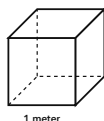
NAME _____

DATE _____

UNIT CUBE

A unit cube is a cube with every edge measuring 1 unit. It has a volume of 1 cubic unit.

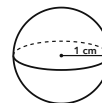
A cube has every edge labeled 1 meter.



NOT A UNIT CUBE

A solid is not a unit cube if it is not a cube, or if its cube edges are not 1 unit long.

A sphere has a radius labeled 1 centimeter.



1 SORT

8 items

Circle the category that matches each figure.

1.

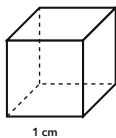


Figure 1

UNIT CUBE

NOT UNIT

2.

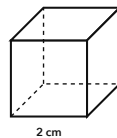


Figure 2

UNIT CUBE

NOT UNIT

3.

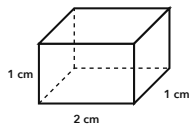


Figure 3

UNIT CUBE

NOT UNIT

4.

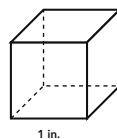


Figure 4

UNIT CUBE

NOT UNIT

5.

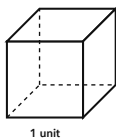


Figure 5

UNIT CUBE

NOT UNIT

6.

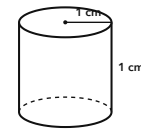


Figure 6

UNIT CUBE

NOT UNIT

7.

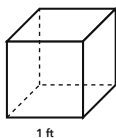


Figure 7

UNIT CUBE

NOT UNIT

8.

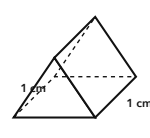


Figure 8

UNIT CUBE

NOT UNIT

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 example of a unit cube and one new example that is not a unit cube.

UNIT CUBE

NOT UNIT

CHALLENGE

Draw a solid that has one edge measuring 1 unit but is not a unit cube. Label its dimensions.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (cube)	UNIT CUBE	It is a cube with side length 1 centimeter.
2	Figure 2 (cube)	NOT UNIT	It is a cube, but each edge is 2 centimeters, not 1 unit.
3	Figure 3 (prism)	NOT UNIT	It is a rectangular prism with one dimension measuring 2 centimeters, so it is not a cube.
4	Figure 4 (cube)	UNIT CUBE	It is a cube with side length 1 inch.
5	Figure 5 (cube)	UNIT CUBE	It is a cube with side length 1 unit.
6	Figure 6 (cylinder)	NOT UNIT	A cylinder is not a cube.
7	Figure 7 (cube)	UNIT CUBE	It is a cube with side length 1 foot.
8	Figure 8 (triangular_prism)	NOT UNIT	A triangular prism is not a cube.

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)

- **UNIT CUBE:** A cube with side length 1 yard.
- **NOT UNIT:** A cube with side length 3 yards.

Challenge: A rectangular prism with length 2 units, width 1 unit, and height 1 unit.

For Part 2, accept explanations that name both needed facts: it is a cube and its edges are 1 unit, or explain which fact is missing. In the challenge, accept any clearly labeled solid that is not a cube with all edges 1 unit.