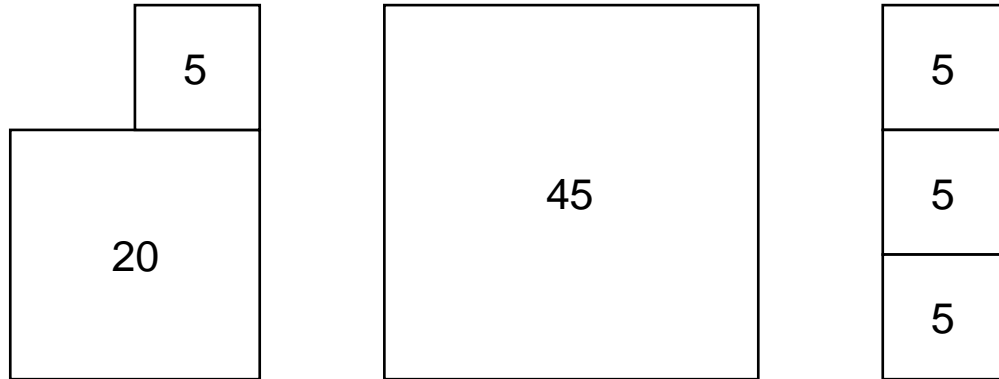


Playing with Squares

NAME _____

In the diagram below, the middle square is the exact same height as the two stacks of squares on either side of it.



The middle square has an area of 45 square centimeters. The squares in the left stack have areas of 5 and 20 square centimeters, respectively. The three squares in the right stack have an area of 5 square centimeters each.

To answer the questions below, the area of every square should be a natural number when measured in square centimeters.

Stacking Squares

- Find stacks of squares with the exact same height as a square with area 72 square centimeters.
- Are there any squares that would have no stacks that are the exact same height? Explain.
- Explain how to find the stacks that would match a given square in height.

Add a Dimension

- How would all this work for cubes instead of squares?