

MATH 4: Homework 24

Due April 28, before the start of the class

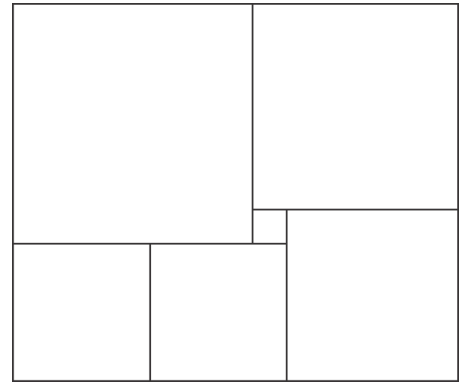
Homework must be submitted on time—at least 15 minutes before the start of the class.

Homework will not be graded after the solutions are posted on Google Classroom.

Write the answers on separate sheets of paper, not between the lines.

1. There are 25 rows in a theater, 20 seats in each row.
 - a. If all tickets are sold, how many ways are there for all people to sit?
 - b. If only 2 tickets are sold?
 - c. Only 10?

2. The rectangle is made up of squares.
Find the side length of the largest square if the side length of the smallest square is 1.



3. I drank $\frac{1}{6}$ of a cup of coffee and topped it off with milk. Then I drank $\frac{1}{3}$ of a cup and added more milk. After that, I drank half a cup and filled it with milk again. Finally, I drank a full cup.
So, what did I drink more of — coffee or milk?
4. The length of a rectangle was increased by 40%, and the width was decreased by 40%.
By what factor did the new area change?
Reminder: $40\% = \frac{40}{100}$. If the length was a cm, it is now $a + a \times \frac{40}{100}$