Unit 5 Module 4 Session 5

Problems & Investigations- Adding areas

Getting Ready-

- ™ T4 Areas for Chickens
- Colored tiles (see Preparation)
- red linear pieces (see Preparation)
- Magnetic tiles (see Preparation)
- Magic Wall (see Preparation)
- Student math journals

Vocabulary

Area

Dimension

Factor

Length

Multiply

Product

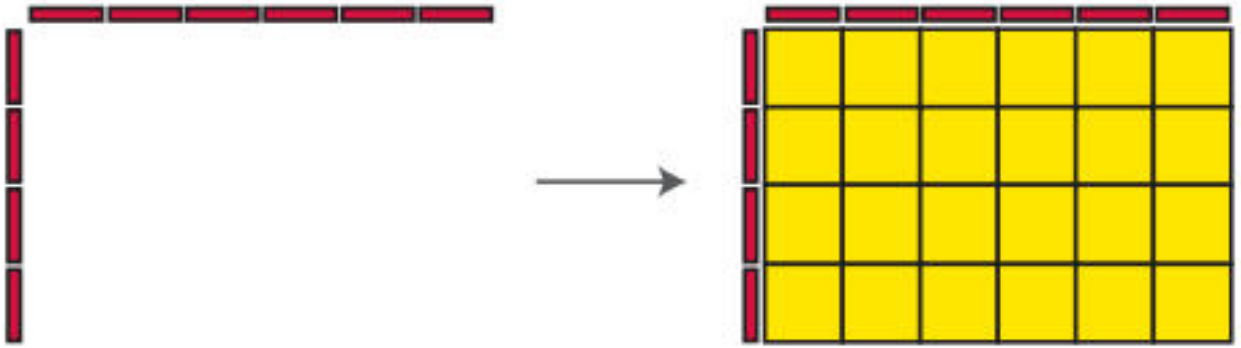
Side length

Square unit

Width

- Measure the area of a rectangle by counting the number of square inches that cover it with no gaps or overlaps
- Demonstrate that the area of a rectangle with whole-number side lengths can be found by multiplying the side lengths
- Solve story problems involving finding the area of a rectangle
- Use tiling to show that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c
- Recognize area as additive; find areas of rectangles by decomposing them into non overlapping rectangles and adding the areas of the parts

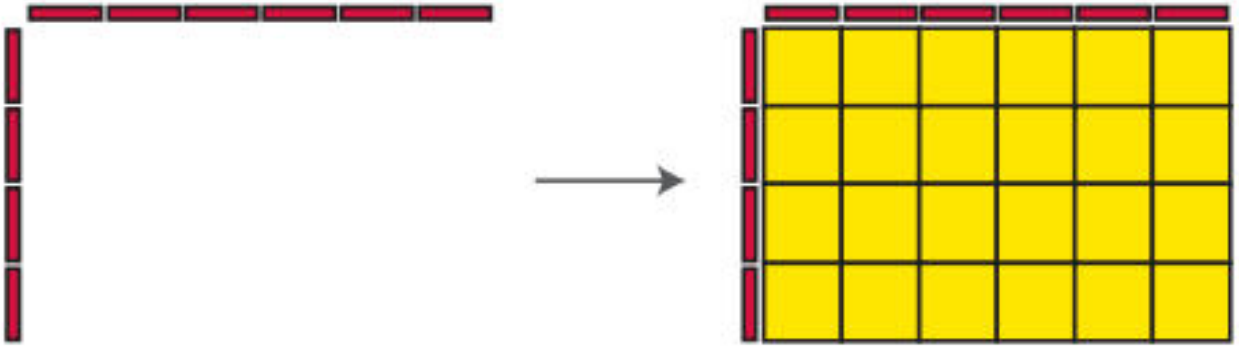
Replicate my frame with your tiles and red linear pieces

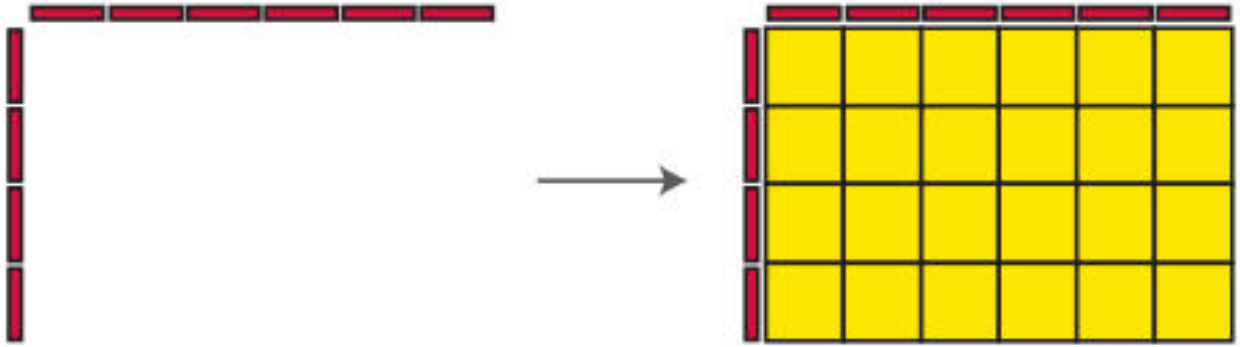


Area
Today's Date

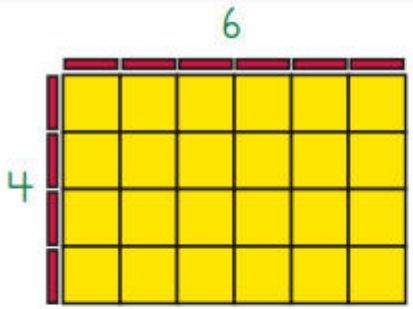
1. Sketch a drawing of our frame

1. Write at least 3 things you know about area





LET'S SHARE



Area = 24 square inches

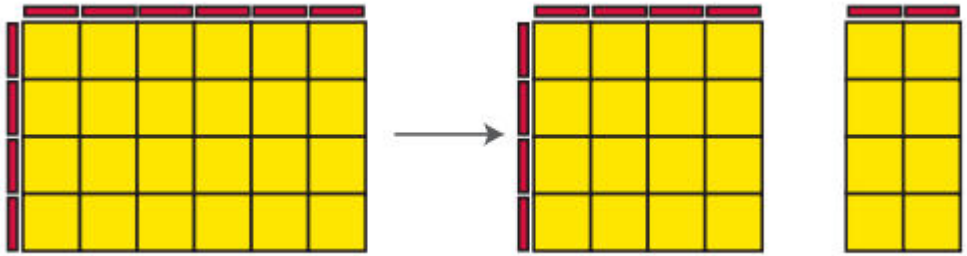
4 rows of 6

6 + 6 + 6 + 6 = 24 square inches

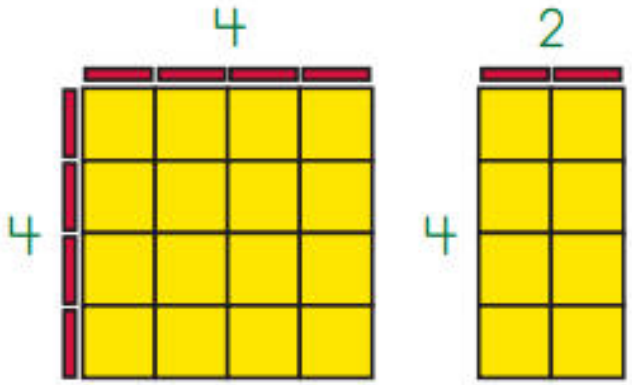
6 columns of 4

4 + 4 + 4 + 4 + 4 + 4 = 24 square inches

4 × 6 = 24 square inches



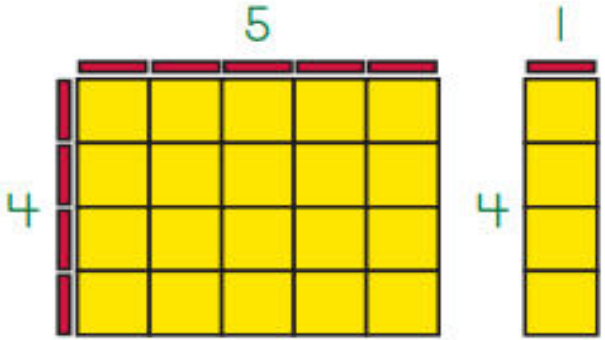
If I were to separate my tile rectangle into two smaller triangles, will the two smaller triangles be the same area of the original triangle or will it change?



$(4 \times 4) + (4 \times 2)$

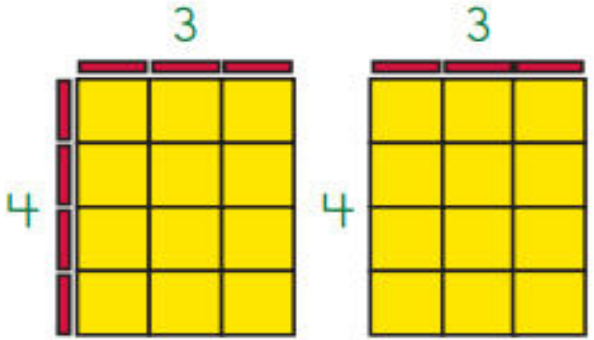
$16 + 8 = _____$

Let's find some other ways to separate our tiles besides 4 and 2.



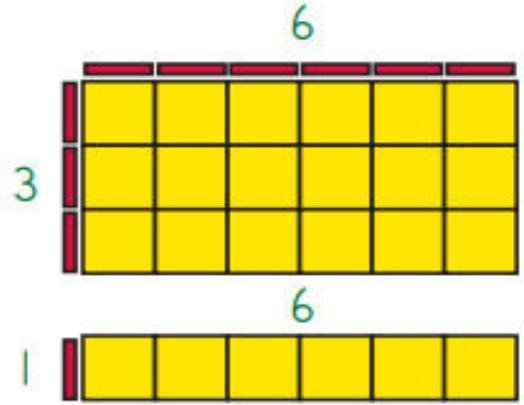
(4 × 5) + (4 × 1)

20 + 4 = 24 square units



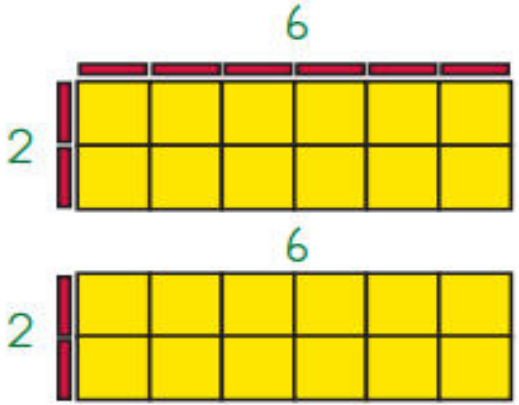
(4 × 3) + (4 × 3)

12 + 12 = 24 square units



(3 × 6) + (1 × 6)

18 + 6 = 24 square units

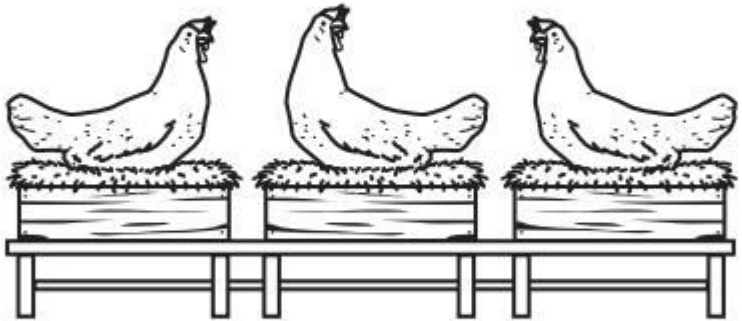


(2 × 6) + (2 × 6)

12 + 12 = 24 square units

Areas for Chickens

Barbara has three chickens: Ruby, Verna, and Bella. She takes excellent care of "the girls." When they aren't scratching around in the yard looking for bugs, grubs, and worms, they enjoy the pen and chicken house Barbara built for them. Most mornings at least two of them lay eggs.



The chickens' pen is 6 feet wide and 10 feet long. The chicken house is 5 feet wide and 6 feet long. How much of Barbara's back yard area is taken up by the pen and chicken house together?

Use whatever tools necessary to solve.

Work Places

4C Target One Thousand

4D Hexagon Spin & Fill

5A Solving Game Store Problems

5B Scout them Out

5C Line 'Em Up

5D Division Capture

Daily Practice

SB 185 Finding More Small Areas

Home Connection

HC 99-100 Playing with Area