MATH NEWS

3rd Grade Math

Module 4: Multiplication and Area
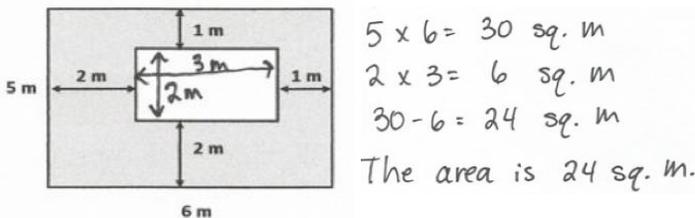
Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 4 of Eureka Math (Engage New York) covers understanding concepts of area and relating area to multiplication and addition. This newsletter will discuss Module 4, Topic D.

Topic D: Applications of Area Using Side Lengths of Figures

Vocabulary Words

- area
- area model
- decompose
- unknown group size
- unknown product
- length
- square unit
- unit square
- unknown number of groups

The figure below shows a small rectangle in a big rectangle. Find the area of the shaded part of the figure.
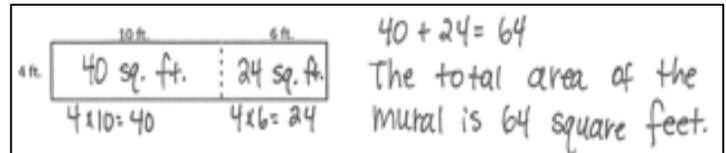

$$5 \times 6 = 30 \text{ sq. m}$$
$$2 \times 3 = 6 \text{ sq. m}$$
$$30 - 6 = 24 \text{ sq. m}$$
The area is 24 sq. m.

OBJECTIVE OF TOPIC D

1 Solve word problems involving area.

2 Find areas by decomposing into rectangles or completing composite figures to form rectangles.

3 Apply knowledge of area to determine areas of rooms in a given floor plan.

Focus Area– Topic D

Applications of Area Using Side Lengths of Figures

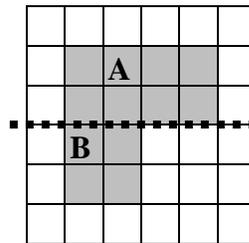How can we find the value of w?
$32 \div 4 = w$
The value of w is 8 feet.
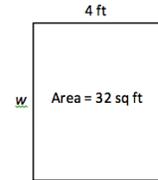
An artist paints a 4 x 16 foot mural on a wall. What is the total area of the mural? Use the break apart and distributive strategy.
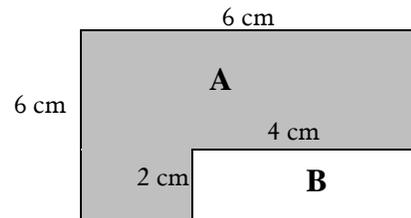

$$40 + 24 = 64$$
The total area of the mural is 64 square feet.

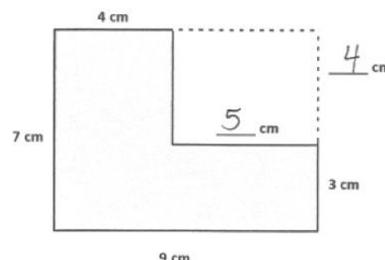There is more than one way to find the unknown area
1. Break Apart Strategy

Area A + Area B = Area of Figure
(2 x 4) + (2 x 2) = 8 + 4 = 12 sq. units

2. Subtract to Find Area

Area of Figure – Area B = Area A
(6 x 6) – (4 x 2) = 36 – 8 = 28 sq. cm

3. Subtract to find Area with Missing Sides

Label the missing sides.
Big rectangle
(7x9) = 63 sq. cm.
Small rectangle
(4 x 5) = 20 sq. cm.
Shaded region
63 – 20 = 43 sq. cm.