MATH NEWS

3rd Grade Math

Module 4: Multiplication and Area

Math Parent Letter

This document gives parents and students a better understanding of the Eureka math concepts that are taught in the classroom. Module 4 of Eureka Math covers understanding concepts of area and relating area to multiplication and addition. This newsletter will discuss Module 4, Topic C (Lessons 9-11).

Topic C: Arithmetic Properties Using Area Models

Vocabulary Words

- area
- area model
- array
- associative property
- distributive property
- length
- rows and columns
- square unit
- unit square

Things to Remember!

Distributive Property

$$8 \times 6 = (5 + 3) \times 6$$
$$= (5 \times 6) + (3 \times 6)$$
$$= 30 + 18$$

OBJECTIVE OF TOPIC C

1 Analyze different rectangles and reason about their area.

2 Apply the distributive property as a strategy to find the total area of a larger rectangle by adding two products.

3 Demonstrate the possible whole number side lengths of rectangles with areas of 24, 36, 48, or 72 square units using the associative property.

Focus Area– Topic C

Arithmetic Properties Using Area Models

In **Lesson 9**, students will cut apart rectangular grids and rearrange the parts to create new rectangles with the same area.

Furaha and Rahema use square tiles to make the rectangles shown   Label the side lengths on the rectangles above and find the area of each rectangle.
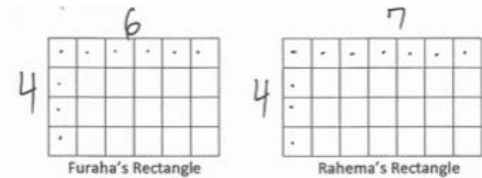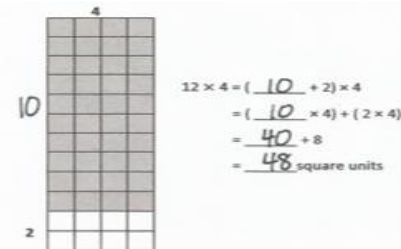

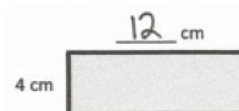| $4 \times 6 = 24$	$4 \times 7 = 28$
Furaha's rectangle has an area of 24 sq. units.	Rahema's rectangle has an area of 28 sq. units

Furaha pushes his rectangle next to Rahema's to form a new, longer rectangle. Draw an area model to show the new rectangle. Label the side lengths.

13 units

4 units
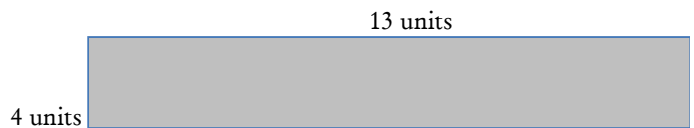
In **Lesson 10**, students apply the distributive property to find area.

$$12 \times 4 = (\underline{10} + 2) \times 4$$
$$= (\underline{10} \times 4) + (2 \times 4)$$
$$= \underline{40} + 8$$
$$= \underline{48} \text{ square units}$$

In **Lesson 11**, students will apply the associative property to determine area.

d. Area: $8 \times 6 = (4 \times 2) \times 6$
$$= 4 \times (2 \times 6)$$
$$= \underline{4} \times \underline{12}$$
$$= \underline{48} \text{ sq cm}$$