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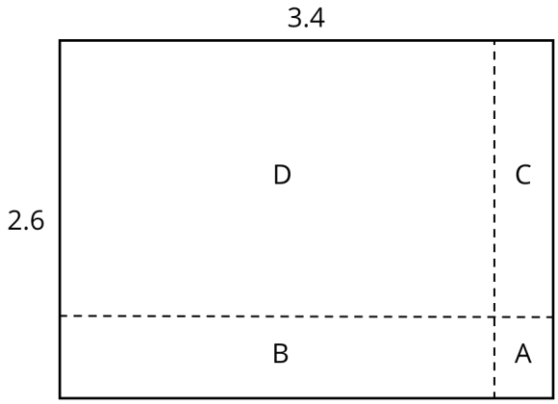
## Unit 5, Lesson 7: Using Diagrams to Represent Multiplication

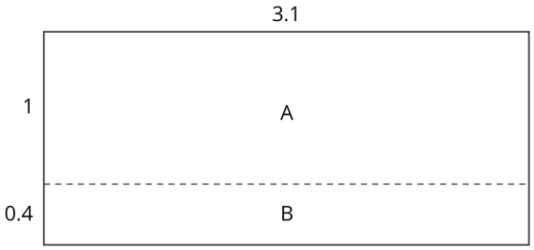
1. Here is a rectangle that has been partitioned into four smaller rectangles.




2. For each expression, choose a sub-rectangle whose area, in square units, matches the expression.

   a. $3 \cdot (0.6)$
   b. $(0.4) \cdot 2$
   c. $(0.4) \cdot (0.6)$
   d. $3 \cdot 2$

3. Here is an area diagram that represents $(3.1) \cdot (1.4)$.



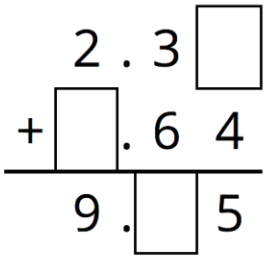

   a. Find the areas of sub-rectangles A and B.
   b. What is the area of the 3.1 by 1.4 rectangle?

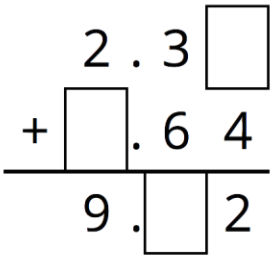
4. Draw an area diagram to find $(0.36) \cdot (0.53)$. Label and organize your work so that it can be followed by others.
5. Find each product. Show your reasoning.

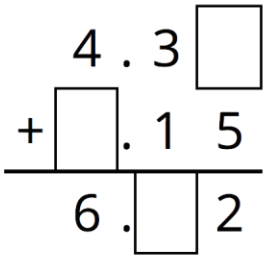
   a. $(2.5) \cdot (1.4)$
   b. $(0.64) \cdot (0.81)$

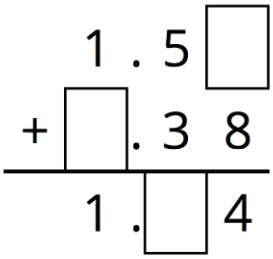
6. Complete the calculations so that each shows the correct sum or difference.

NAME DATE PERIOD




7. (from Unit 5, Lesson 3)
8. Diego bought 12 mini muffins for $4.20.

    a. At this rate, how much would Diego pay for 4 mini muffins?

    b. How many mini muffins could Diego buy with $3.00? Explain or show your reasoning. If you get stuck, consider using the table.

| number of mini muffins | price in dollars |
|---|---|
| 12 | 4.20 |
| | |
| | |
| | |

(from Unit 2, Lesson 12)