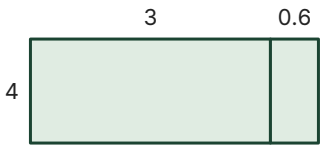
Decimal Area Diagrams

Decimals

Name: _____ Date: _____ Grade 6

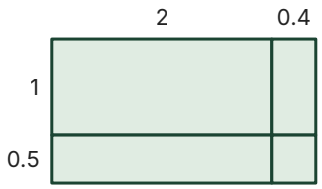
1. Write a multiplication expression that represents each area diagram.

a



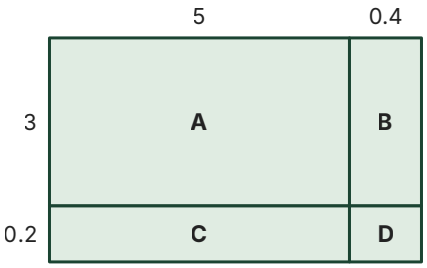
Expression: _____

b



Expression: _____

2. This rectangle has been split into four smaller rectangles. For each expression, name the smaller rectangle that matches it. Then find its area.



a $(0.4) \cdot 3$ Rectangle _____ Area _____

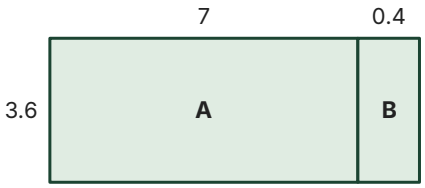
b $5 \cdot 3$ Rectangle _____ Area _____

c $(0.4) \cdot (0.2)$ Rectangle _____ Area _____

d $5 \cdot (0.2)$ Rectangle _____ Area _____

e Total area of the large rectangle: _____

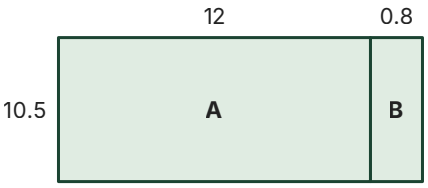
3. The area diagram represents (7.4) · (3.6).



a Find the areas of Rectangles A and B. A: _____ B: _____

b What is the area of the 7.4 by 3.6 rectangle? _____

4. The area diagram represents (12.8) · (10.5).



a Find the areas of Rectangles A and B. A: _____ B: _____

b What is the area of the 12.8 by 10.5 rectangle? _____

5. Think about the expression (0.32) · (0.14). Draw an area diagram, then find the product.

Product: _____

6. Think about the expression (5.4) · (8.2). Draw an area diagram, then find the product.

Product: _____

7. Mo drew this area diagram for (6.3) · (8.4). Lena says Mo's diagram is wrong because it shows only two rectangles instead of four. Who is correct? Explain your thinking.

