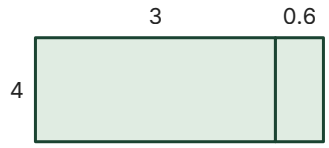
Decimal Area Diagrams

Decimals • Answer Key

ANSWER KEY • Amplify Alignment: Grade 6 Accelerated, Unit 3, Lesson 16

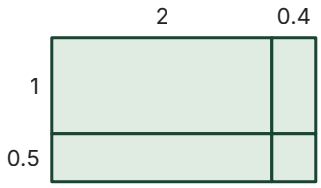
1. Write a multiplication expression that represents each area diagram.

a



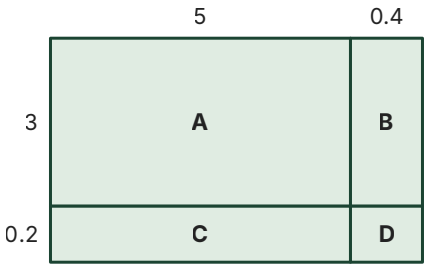
Expression: **(3.6) · 4**

b



Expression: **(2.4) · (1.5)**

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) · 3 Rectangle **B** Area **1.2**

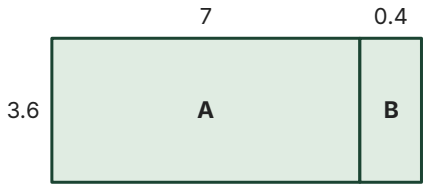
b 5 · 3 Rectangle **A** Area **15**

c (0.4) · (0.2) Rectangle **D** Area **0.08**

d 5 · (0.2) Rectangle **C** Area **1**

e Total area of the large rectangle: **17.28**

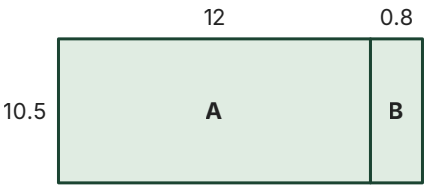
3. The area diagram represents (7.4) · (3.6).



a Find the areas of Rectangles A and B. A: 25.2 B: 1.44

b What is the area of the 7.4 by 3.6 rectangle? 26.64

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



a Find the areas of Rectangles A and B. A: 126 B: 8.4

b What is the area of the 12.8 by 10.5 rectangle? 134.4

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

	0.3	0.02
0.1	0.03	0.002
0.04	0.012	0.0008

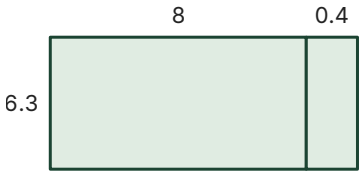
Product: 0.0448

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

	5	0.4
8	40	3.2
0.2	1	0.08

Product: 44.28

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.



Mo. Splitting only one side is fine: 6.3 · 8 = 50.4 and 6.3 · 0.4 = 2.52. 50.4 + 2.52 = 52.92.