

The Area Model Is Just a Box

Split each number into tens and ones. Multiply each part. Add the 4 boxes.

Watch me: 23×14

	20	3	
10	200	30	
4	80	12	

- 1 Split 23 into $20 + 3$ (across the top).
- 2 Split 14 into $10 + 4$ (down the side).
- 3 Multiply to fill each box: 20×10 , 3×10 , 20×4 , 3×4 .
- 4 Add the boxes: $200 + 30 + 80 + 12 = 322$

Your turn: the box is split for you. Fill it in and add.

A. 32×13

	30	2	
10			
3			

Add the boxes:

$$32 \times 13 = \underline{\hspace{2cm}}$$

B. 24×15

	20	4	
10			
5			

Add the boxes:

$$24 \times 15 = \underline{\hspace{2cm}}$$

C. 41×12

	40	1	
10			
2			

Add the boxes:

$$41 \times 12 = \underline{\hspace{2cm}}$$



Name _____ Date _____

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Draw Your Own Box

Write the tens and ones on the top and side. Fill the 4 boxes. Add them up.

D. 26×13

Add: _____

$26 \times 13 =$ _____

E. 35×21

Add: _____

$35 \times 21 =$ _____

F. 47×12

Add: _____

$47 \times 12 =$ _____

G. 52×16

Add: _____

$52 \times 16 =$ _____



Bat Cave Challenge: A cave has 18 rows of sleeping bats. Each row has 24 bats. How many bats are in the cave? Use a box!

Answer: _____ bats



The Area Model Is Just a Box

A. 32×13 : top $30 + 2$, side $10 + 3 \rightarrow 300 + 20 + 90 + 6 = \mathbf{416}$

B. 24×15 : top $20 + 4$, side $10 + 5 \rightarrow 200 + 40 + 100 + 20 = \mathbf{360}$

C. 41×12 : top $40 + 1$, side $10 + 2 \rightarrow 400 + 10 + 80 + 2 = \mathbf{492}$

D. 26×13 : top $20 + 6$, side $10 + 3 \rightarrow 200 + 60 + 60 + 18 = \mathbf{338}$

E. 35×21 : top $30 + 5$, side $20 + 1 \rightarrow 600 + 100 + 30 + 5 = \mathbf{735}$

F. 47×12 : top $40 + 7$, side $10 + 2 \rightarrow 400 + 70 + 80 + 14 = \mathbf{564}$

G. 52×16 : top $50 + 2$, side $10 + 6 \rightarrow 500 + 20 + 300 + 12 = \mathbf{832}$

Bat Cave 18×24 : top $10 + 8$, side $20 + 4 \rightarrow 200 + 160 + 40 + 32 = \mathbf{432}$

Bat Cave: 432 bats. Tip: the box works for any size number. A 3-digit number just gets 3 columns.



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