

$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

$x^y = x \log a$

$y = \sin x$

# Makes GENIUS<sup>®</sup> PRACTICE

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## 2 Digit Multiplication- Area Modeling

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## Practice Makes Genius-10 Days of Practice: Area Model Multiplication

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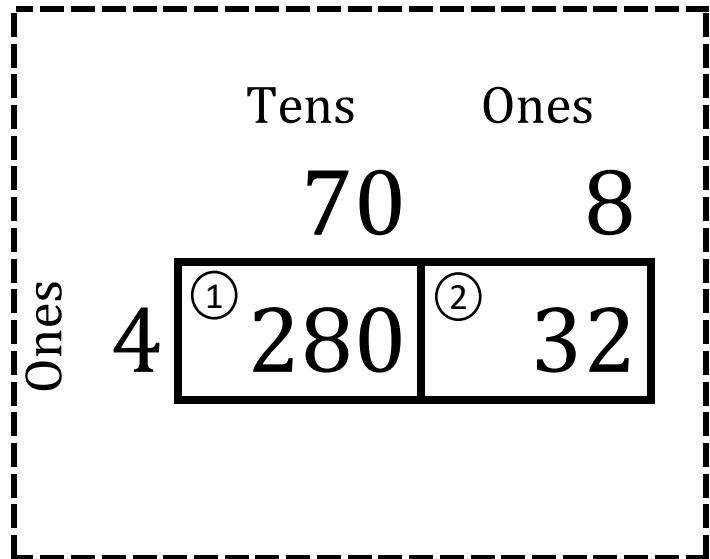
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# Area Model Multiplication

$$\begin{array}{r} 78 \\ \times 4 \\ \hline 312 \end{array}$$



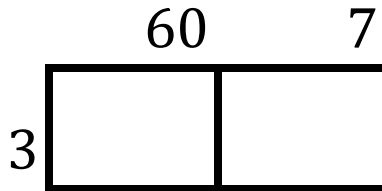
1. Break up each number into tens and ones
2. Multiply first box  $70 \times 4 = 280$
3. Multiply second box  $8 \times 4 = 32$
4. Add the boxes

$$\begin{array}{r} 280 \\ + 32 \\ \hline 312 \end{array}$$



**Find the product**  
(The answers are in the "Answers" section)

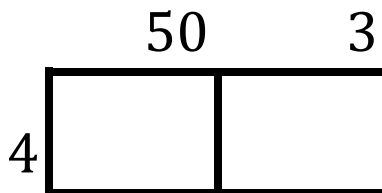
$$\begin{array}{r} 67 \\ \times 3 \\ \hline \end{array}$$



Answer

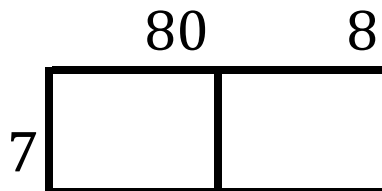
\_\_\_\_\_

$$\begin{array}{r} 53 \\ \times 4 \\ \hline \end{array}$$



\_\_\_\_\_

$$\begin{array}{r} 88 \\ \times 7 \\ \hline \end{array}$$



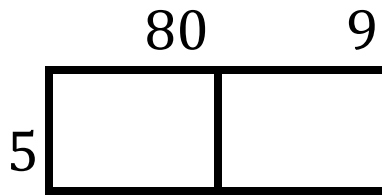
\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

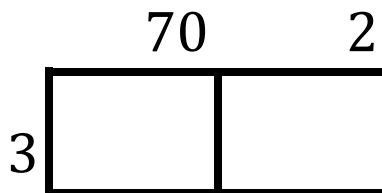
$$\begin{array}{r} 89 \\ \times 5 \\ \hline \end{array}$$



Answer

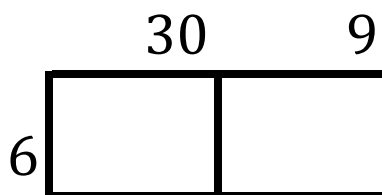
\_\_\_\_\_

$$\begin{array}{r} 72 \\ \times 3 \\ \hline \end{array}$$



\_\_\_\_\_

$$\begin{array}{r} 39 \\ \times 6 \\ \hline \end{array}$$



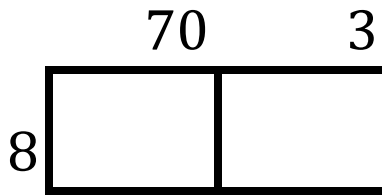
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Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

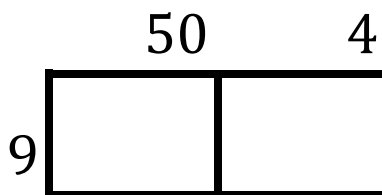
$$\begin{array}{r} 73 \\ \times 8 \\ \hline \end{array}$$



Answer

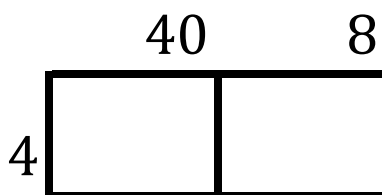
\_\_\_\_\_

$$\begin{array}{r} 54 \\ \times 9 \\ \hline \end{array}$$



\_\_\_\_\_

$$\begin{array}{r} 48 \\ \times 4 \\ \hline \end{array}$$



\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 94 \\ \times 3 \\ \hline \end{array}$$

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\_\_\_\_\_

$$\begin{array}{r} 41 \\ \times 9 \\ \hline \end{array}$$

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\_\_\_\_\_

$$\begin{array}{r} 87 \\ \times 6 \\ \hline \end{array}$$

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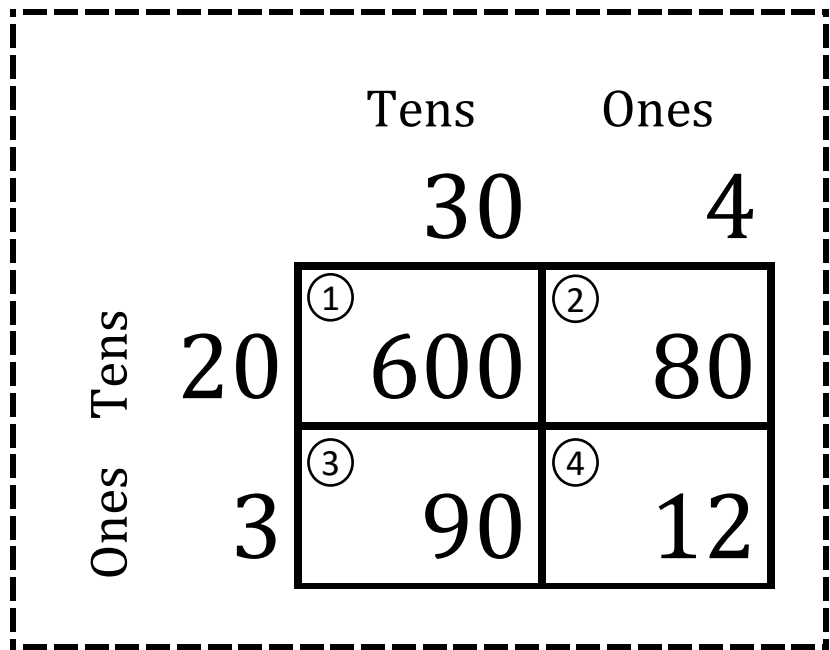
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Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

# Area Model Multiplication

$$\begin{array}{r} 34 \\ \times 23 \\ \hline 782 \end{array}$$



1. Break up each number into tens and ones

2. Multiply first box  $30 \times 20 = 600$  600

3. Multiply second box  $4 \times 20 = 80$  80

4. Multiply third box  $30 \times 3 = 90$  90

5. Multiply fourth box  $4 \times 3 = 12$  + 12

6. Add the boxes

782





# Find the product

(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 62 \\ \times 15 \\ \hline \end{array}$$

	60	2
10		
5		

\_\_\_\_\_

$$\begin{array}{r} 74 \\ \times 23 \\ \hline \end{array}$$

	70	4
20		
3		

\_\_\_\_\_

$$\begin{array}{r} 69 \\ \times 34 \\ \hline \end{array}$$

	60	9
30		
4		

\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

# Find the product

(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 24 \\ \times 16 \\ \hline \end{array}$$

	20	4
10		
6		

\_\_\_\_\_

$$\begin{array}{r} 64 \\ \times 62 \\ \hline \end{array}$$

	60	4
60		
2		

\_\_\_\_\_

$$\begin{array}{r} 88 \\ \times 65 \\ \hline \end{array}$$

	80	8
60		
5		

\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 87 \\ \times 23 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 75 \\ \times 14 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 54 \\ \times 35 \\ \hline \end{array}$$


\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 44 \\ \times 43 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 15 \\ \times 11 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 89 \\ \times 34 \\ \hline \end{array}$$


\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 33 \\ \times 32 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 92 \\ \times 14 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 85 \\ \times 21 \\ \hline \end{array}$$


\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

**Find the product**  
(The answers are in the "Answers" section)

Answer

$$\begin{array}{r} 25 \\ \times 13 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 55 \\ \times 22 \\ \hline \end{array}$$


\_\_\_\_\_

$$\begin{array}{r} 83 \\ \times 12 \\ \hline \end{array}$$


\_\_\_\_\_

Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

# Real World Problem

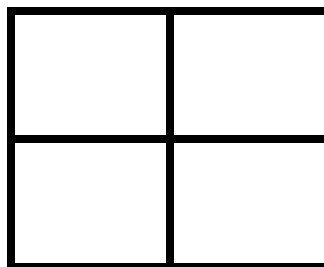
(The answers are in the "Answers" section)

Brandy is planting a vegetable garden that is 24 feet long and 18 feet wide. She wants to find the total area of her garden. How many square feet does Brandy's garden cover?

*Hint: The area of a rectangle is needed. Draw a picture if needed to help solve.*

*Write Equation:*

X



Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

# Real World Problem

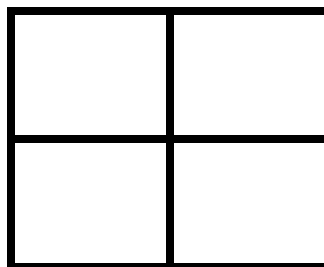
(The answers are in the "Answers" section)

A sports store wants to sell 32 basketball jerseys for \$21 each. How much money will they make if they sell all the jerseys?

*Hint: Draw a picture if needed to help solve.*

*Write Equation:*

X



Completed by: \_\_\_\_\_

Score: \_\_\_\_\_



# Real World Problem

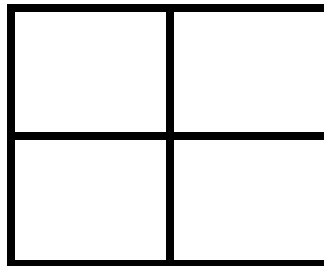
(The answers are in the "Answers" section)

Your school auditorium wants to know how many people they can invite to the school concert. The auditorium has 36 rows of seats, and each row contains 42 seats. How many total seats are in the auditorium?

*Hint: Draw a picture if needed to help solve.*

*Write Equation:*

X



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Completed by: \_\_\_\_\_

Score: \_\_\_\_\_

## Answers

Worksheet 1	$67 \times 3 = 201$	Worksheet 2	$89 \times 5 = 445$
	$53 \times 4 = 212$		$72 \times 3 = 216$
	$88 \times 7 = 616$		$39 \times 6 = 234$
Worksheet 3	$73 \times 8 = 584$	Worksheet 4	$94 \times 3 = 282$
	$54 \times 9 = 486$		$41 \times 9 = 369$
	$48 \times 4 = 192$		$87 \times 6 = 522$
Worksheet 5	$62 \times 15 = 930$	Worksheet 6	$24 \times 16 = 384$
	$74 \times 23 = 1,702$		$64 \times 62 = 3,968$
	$69 \times 34 = 2,346$		$88 \times 65 = 5,720$
Worksheet 7	$87 \times 23 = 2,001$	Worksheet 8	$44 \times 43 = 1,892$
	$75 \times 14 = 1,050$		$15 \times 11 = 165$
	$54 \times 35 = 1,890$		$89 \times 34 = 3,026$
Worksheet 9	$33 \times 32 = 1,056$	Worksheet 10	$25 \times 13 = 325$
	$92 \times 14 = 1,288$		$55 \times 22 = 1,210$
	$85 \times 21 = 1,785$		$83 \times 12 = 996$
Real World Problem 1	$24 \times 18 = 432$		
Real World Problem 2	$32 \times 21 = 672$		
Real World Problem 3	$36 \times 42 = 1,512$		