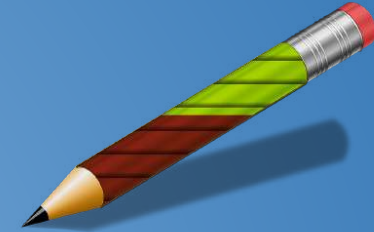


Lesson 4-2

Use Models to Multiply 2-Digit Numbers by Multiples of 10



Standard:



Multiply a whole number of up to three digits by a one-digit whole number, and multiply up to two two-digit numbers with place value understanding using area models, partial products, and the properties of operations. Use models to make connections and develop the algorithm.



I Can Statement:

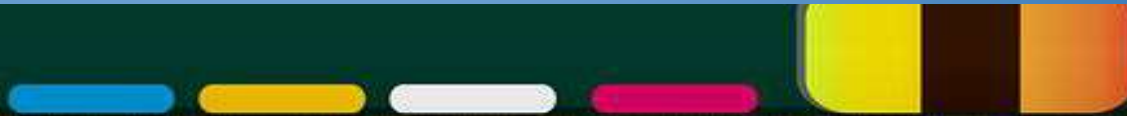
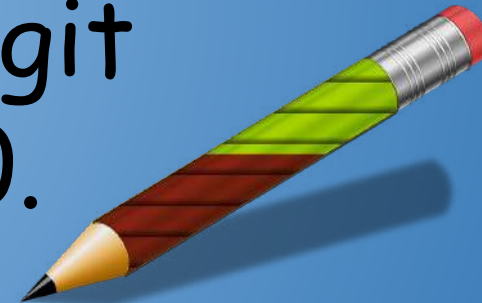
I can use models and properties of operations to help multiply.

Essential Question:

How can you use an array or an area model to multiply?

Objective:

I can use models and properties of operations to multiply 2-digit numbers by multiples of 10.





This model
shows 10
groups of 21
or 10×21 .



Another Way:

Look at another model that models the same problem. Break 21 apart using place-value and write the expanded form on top. Then write the other factor, 10, on the side. Multiply 10×20 and 10×1 and then add the two partial products!

	$\times 20$	$+$	1	
	10×20		10×1	
10	200		10	

200
$+ 10$
210

Multiply 20×26



TRY THIS

$20 + 6$

	$\times 20$	$+$	6	
20				

Multiply 20×26

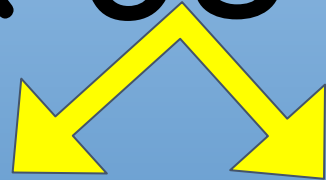
	20	+	6	
$\times$				
20	20×20 400		20×6 120	

400
$+ 120$
520

Multiply 30×68



TRY THIS



$60 + 8$

	$\times 60$	$+$	8
30			

Multiply 30×68

	$\times$	60	+	8	
30		30×60		30×8	
		1,800		240	

1,800
+ 240
2,040

Use area model to find 93×40

AREA MODEL





$90 + 3$



TRY THIS

Multiply 93×40

AREA MODEL



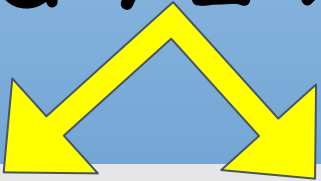
× 40	90	+	3
	40 x 90 3,600		40 x 3 120

$$\begin{array}{r} 3,600 \\ + 120 \\ \hline 3,720 \end{array}$$

Use area model to find 72×50

AREA MODEL





$70 + 2$



TRY THIS

Multiply 72×50



	$\times$	70	+	2	
50		50×70		50×2	
		3,500		100	

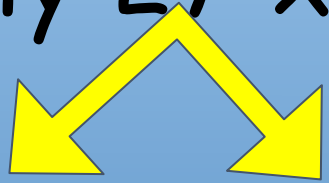
3,500
+ 100
3,600

Mrs. Broadus has 27 scholars in her class. Each scholar raised \$70 for the ice skating field trip. How much money did the scholars raise for the trip?



TRY THIS

Multiply 27×70



$20 + 7$



Multiply 27×70



$\times$	20	$+$	7
	70×20		70×7
70	$1,400$		490

$1,400$
$+ 490$
$\$1,890$

Independent Practice

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Problems 3-8

Homework
Practice Buddy 4.2

