

Name _____

Use Models to Multiply Tens and Ones

Essential Question How can you use base-ten blocks and area models to model multiplication with a 2-digit factor?

UNLOCK the Problem REAL WORLD

Three groups of 14 students toured the state capitol in Columbus, Ohio. How many students toured the capitol in all?

Multiply. $3 \times 14 = \blacksquare$

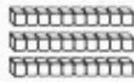
- What do you need to find?

- Circle the numbers you need to use.

One Way

STEP 1

Model 3×14 with base-ten blocks.



3 rows of 10



3 rows of 4

STEP 2

Multiply the tens and ones.
Record each product.



$3 \times 10 = \underline{\quad}$



$3 \times 4 = \underline{\quad}$

STEP 3

Add the products.

$30 + 12 = 42$

$3 \times 14 = 42$

So, 42 students toured the capitol.

Another Way

STEP 1

Model 3×14 with an area model.



3 rows of 10

3 rows of 4

STEP 2

Multiply the tens.

$3 \times 10 = \underline{\quad}$

Multiply the ones.

$3 \times 4 = \underline{\quad}$

STEP 3

Add the products.

$30 + 12 = 42$

$3 \times 14 = 42$

Math Talk

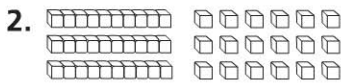
How are the two ways to find a product alike?

Share and Show

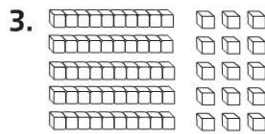


1. One way to model 18 is 1 ten 8 ones.
How can knowing this help you
find 4×18 ?
-
-

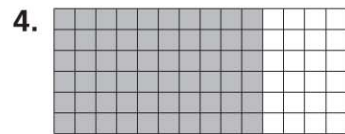
Find the product. Show your multiplication and addition.



$$3 \times 16 = \blacksquare$$



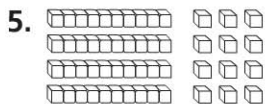
$$5 \times 13 = \blacksquare$$



$$6 \times 14 = \blacksquare$$

On Your Own

Find the product. Show your multiplication and addition.



$$4 \times 13 = \blacksquare$$



$$5 \times 15 = \blacksquare$$



$$3 \times 17 = \blacksquare$$

Problem Solving



8. Randy rakes yards for \$5 an hour. How much
money does he earn if he works for 12 hours?
-