1. Solve by drawing disks on a place value chart. Write an equation, and express the product in standard form.

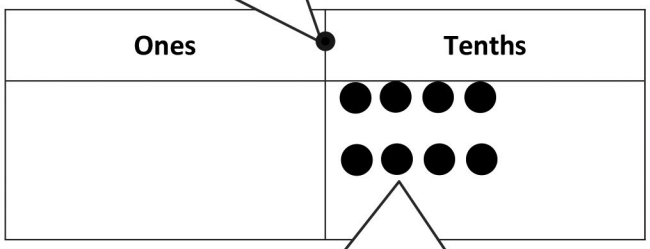
a. 2 copies of 4 tenths

$= \mathbf{2 \times 0.4}$

$= \mathbf{0.8}$

2 copies means 2 groups. So, I'll multiply 2 times 4 tenths. The answer is 8 tenths, or 0.8.

I'll draw a place value chart to help me solve, and this dot is the decimal point.



Each dot represents 1 tenth, so I'll draw 2 groups of 4 tenths.

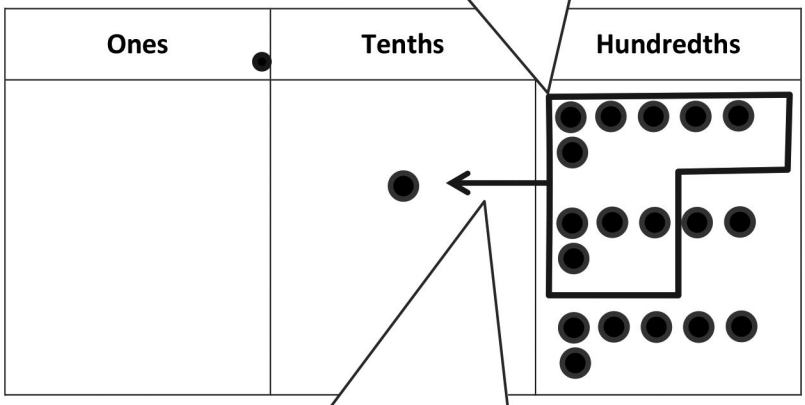
b. 3 times as much as 6 hundredths

$= \mathbf{3 \times 0.06}$

$= \mathbf{0.18}$

I'll multiply 3 times 6 hundredths. The answer is 18 hundredths, or 0.18.

I'll draw 3 groups of 6 hundredths.



I'll bundle 10 hundredths and exchange them for 1 tenth.

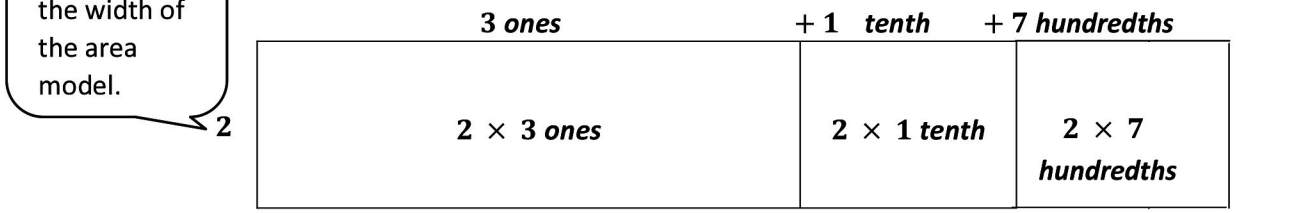
2. Draw an area model, and find the sum of the partial products to evaluate each expression.

a. 2×3.17

3.17 is the same as 3 ones 1 tenth 7 hundredths.

The factor 3.17 represents the length of the area model.

The factor 2 represents the width of the area model.



$6 + 0.2 + 0.14 = 6.34$

I'll multiply 2 times each place value unit.

2×3 ones $= 6$ ones $= 6$

2×1 tenth $= 2$ tenths $= 0.2$

2×7 hundredths $= 14$ hundredths $= 0.14$

The product of 2 and 3.17 is 6.34.

b. 4 times as much as 30.16

There are 0 ones in 30.16, so my area model does not include the ones.

$120 + 0.4 + 0.24 = 120.64$

I'll multiply 4 times each place value unit.

4×3 tens $= 12$ tens $= 120$

4×1 tenth $= 4$ tenths $= 0.4$

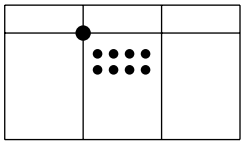
4×6 hundredths $= 24$ hundredths $= 0.24$

The product of 4 and 30.16 is 120.64.

Name _____ Date _____

1. Solve by drawing disks on a place value chart. Write an equation, and express the product in standard form.

   a. 2 copies of 4 tenths

   $2 \times 0.4 = 0.8$

   b. 4 groups of 5 hundredths

   c. 4 times 7 tenths

   d. 3 times 5 hundredths

   e. 9 times as much as 7 tenths

   f. 6 tenths times 8

2. Draw a model similar to the one pictured below. Find the sum of the partial products to evaluate each expression.

   a. 4×6.79

	6 ones	+	7 tenths	+	9 hundredths
4	4 × 6 ones		4 × 7 tenths		4 × 9 hundredths

_____ + _____ + _____ = _____

b. 6×7.49

c. 9 copies of 3.65

d. 3 times 20.17

3. Leanne multiplied 8×4.3 and got 32.24. Is Leanne correct? Use an area model to explain your answer.

4. Anna buys groceries for her family. Hamburger meat is \$3.38 per pound, sweet potatoes are \$0.79 each, and hamburger rolls are \$2.30 a bag. If Anna buys 3 pounds of meat, 5 sweet potatoes, and 1 bag of hamburger rolls, what will she pay in all for the groceries?