Multiplying Decimals by Powers of 10

To multiply by 10, move the decimal point **one** place to the right.

0.4

$10 \times 0.4 = 4$

To multiply by 100, move the decimal point **two** places to the right.

0.40

$100 \times 0.4 = 40$

To multiply by 1,000, move the decimal point **three** places to the right.

0.400

$1{,}000 \times 0.4 = 400$

Find each product. Use mental math.

1.	$10 \times 0.06 =$	$100 \times 0.06 =$	$1{,}000 \times 0.06 =$	$10 \times 0.6 =$
2.	$10 \times 4.3 =$	$100 \times 4.3 =$	$1{,}000 \times 4.3 =$	$0.43 \times 100 =$
3.	$0.653 \times 1{,}000 =$	$1.09 \times 10 =$	$21.3 \times 10 =$	$10 \times 0.007 =$
4.	$1{,}000 \times 0.046 =$	$0.46 \times 1{,}000 =$	$0.46 \times 100 =$	$0.46 \times 10 =$
5.	$1{,}000 \times 3.9 =$	$0.0045 \times 10 =$	$100 \times 0.03 =$	$12.6 \times 1{,}000 =$
6.	$1.234 \times 100 =$	$0.11 \times 1{,}000 =$	$0.11 \times 10{,}000 =$	$0.11 \times 100{,}000 =$

Helping at Home

Encourage your child to think aloud while summarizing the rules at the top of this page. Ask, "When you multiply a decimal number, does it get larger or smaller? Does the decimal point move to the right or the left? Why?"

Multiplying Decimals by Powers of 10

To multiply by 10, move the decimal point **one** place to the right.

0.4

$10 \times 0.4 = 4$

To multiply by 100, move the decimal point **two** places to the right.

0.40

$100 \times 0.4 = 40$

To multiply by 1,000, move the decimal point **three** places to the right.

0.400

$1{,}000 \times 0.4 = 400$

Find each product. Use mental math.

1.	$10 \times 0.06 =$	$100 \times 0.06 =$	$1{,}000 \times 0.06 =$	$10 \times 0.6 =$
2.	$10 \times 4.3 =$	$100 \times 4.3 =$	$1{,}000 \times 4.3 =$	$0.43 \times 100 =$
3.	$0.653 \times 1{,}000 =$	$1.09 \times 10 =$	$21.3 \times 10 =$	$10 \times 0.007 =$
4.	$1{,}000 \times 0.046 =$	$0.46 \times 1{,}000 =$	$0.46 \times 100 =$	$0.46 \times 10 =$
5.	$1{,}000 \times 3.9 =$	$0.0045 \times 10 =$	$100 \times 0.03 =$	$12.6 \times 1{,}000 =$
6.	$1.234 \times 100 =$	$0.11 \times 1{,}000 =$	$0.11 \times 10{,}000 =$	$0.11 \times 100{,}000 =$

Helping at Home

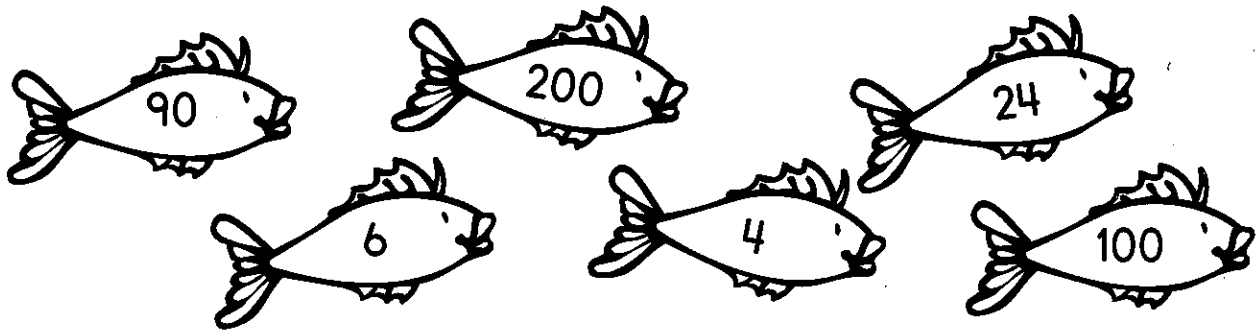
Encourage your child to think aloud while summarizing the rules at the top of this page. Ask, "When you multiply a decimal number, does it get larger or smaller? Does the decimal point move to the right or the left? Why?"

Parentheses and Brackets in Expressions

Solve the problem within groupings first.
Example: $3 \times (5 + 4)$
$3 \times 9 = 27$

Evaluate each expression. Look for your answer swimming in the sea of answers.

1. $2 \times (4 - 2)$	2. $(3 + 13) - (2 + 8)$
3. $(452 - 448) \times 6$	4. $(18 - 3) \times 6$
5. $2 \times [5 \times (3 + 7)]$	6. $500 - [3 \times (20 + 80)]$



Helping at Home

Write a series of numbers, such as *68, 125, 4, 18, 100*, five times on a large sheet of paper. Can your child add operations symbols (+, −, ×, ÷), parentheses, and brackets to make five different expressions with five different values?