

Student Guide

Multiples of Tens and Hundreds
(SG pp. 234–235)

Questions 1–6

1.* Put a 0 to the right of the number which is being multiplied by 10. For example,
 $4 \times 10 = 40$ and $5 \times 10 = 50$.

2. A. \dots B. $\begin{array}{|l} \text{||||} \\ \text{||||} \\ \text{||||} \end{array}$ C. $\begin{array}{|l} \square \square \square \square \\ \square \square \square \square \end{array}$
 $2 \times 4 = 8$ $2 \times 40 = 80$ $2 \times 400 = 800$


3. A. $\dots\dots$ B. $\begin{array}{|l} \text{|||||} \\ \text{|||||} \\ \text{|||||} \end{array}$ C. $\begin{array}{|l} \square \square \square \square \square \\ \square \square \square \square \square \\ \square \square \square \square \square \end{array}$
 $3 \times 6 = 18$ $3 \times 60 = 180$ $3 \times 600 = 1800$

4. A.* $\begin{array}{|l} \dots \\ \dots \\ \dots \end{array}$ B.* $\begin{array}{|l} \text{||||} \\ \text{||||} \\ \text{||||} \end{array}$ C.* $\begin{array}{|l} \square \square \square \\ \square \square \square \\ \square \square \square \end{array}$
 $4 \times 3 = 12$ $4 \times 30 = 120$ $4 \times 300 = 1200$

5.* See discussion in the lesson.
 6. A. 240 B. 370
 C. 400 D. 3480
 E. 600 F. 1200
 G. 3400 H. 87,600

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Multiples of Tens and Hundreds

Discuss 

1. What pattern for multiplying a number by ten did you find in the multiplication table? Write two examples that show your pattern.

Johnny used base-ten pieces to find the product of 3×5 , 3×50 , and 3×500 . He showed how he solved each problem using base-ten shorthand and wrote number sentences to match.

$\dots\dots$
 $\dots\dots$
 $\dots\dots$

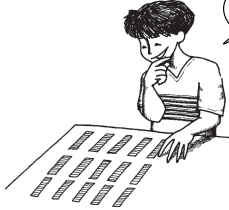
$3 \times 5 = 15$

$\begin{array}{|l} \text{||||} \\ \text{||||} \\ \text{||||} \end{array}$

$3 \times 50 = 150$

$\begin{array}{|l} \square \square \square \square \\ \square \square \square \square \\ \square \square \square \square \end{array}$


$3 \times 500 = 1500$



$3 \times 50 = 3 \times 5 \text{ tens}$
 $= 15 \text{ tens}$
 So, $3 \times 50 = 15 \times 10$
 $= 150$

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Explore 

Solve the following problems using base-ten pieces. Show how you solved each problem using base-ten shorthand. Then write a number sentence to match.

2. A. $2 \times 4 = ?$

B. $2 \times 40 = ?$

C. $2 \times 400 = ?$

3. A. $3 \times 6 = ?$

B. $3 \times 60 = ?$

C. $3 \times 600 = ?$

4. A. $4 \times 3 = ?$

B. $4 \times 30 = ?$

C. $4 \times 300 = ?$

5. Describe patterns that you see in the problems in Questions 2, 3, and 4.

6. Use the patterns to predict these products. Use a calculator to check your predictions.

A. $10 \times 24 = ?$

B. $10 \times 37 = ?$

C. $10 \times 40 = ?$

D. $10 \times 348 = ?$

E. $100 \times 6 = ?$

F. $100 \times 12 = ?$

G. $100 \times 34 = ?$

H. $100 \times 876 = ?$

Practice multiplying with tens and hundreds on the *Multiply with Function Machines* pages in the *Student Activity Book*.

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*Answers and/or discussion are included in the lesson.

Homework

1. A. $\begin{array}{r} 20 \\ \times 5 \\ \hline \end{array}$ B. $\begin{array}{r} 30 \\ \times 3 \\ \hline \end{array}$ C. $\begin{array}{r} 60 \\ \times 4 \\ \hline \end{array}$
- D. $\begin{array}{r} 50 \\ \times 7 \\ \hline \end{array}$ E. $\begin{array}{r} 90 \\ \times 5 \\ \hline \end{array}$ F. $\begin{array}{r} 60 \\ \times 5 \\ \hline \end{array}$
2. A. $\begin{array}{r} 200 \\ \times 5 \\ \hline \end{array}$ B. $\begin{array}{r} 300 \\ \times 3 \\ \hline \end{array}$ C. $\begin{array}{r} 600 \\ \times 4 \\ \hline \end{array}$
- D. $\begin{array}{r} 500 \\ \times 7 \\ \hline \end{array}$ E. $\begin{array}{r} 900 \\ \times 5 \\ \hline \end{array}$ F. $\begin{array}{r} 600 \\ \times 5 \\ \hline \end{array}$

3. Complete the Function Machine table.

Rule: Multiply by 10

	Input	Output	Number Sentence
A.	4		
B.	40		
C.	15		
D.	250		
E.	100		
F.	50		

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Homework (SG p. 236)

Questions 1–3

1. A. 100 B. 90 C. 240
D. 350 E. 450 F. 300
2. A. 1000 B. 900 C. 2400
D. 3500 E. 4500 F. 3000

3. Rule: Multiply by 10

	Input	Output	Number Sentence
A.	4	40	$4 \times 10 = 40$
B.	40	400	$40 \times 10 = 400$
C.	15	150	$15 \times 10 = 150$
D.	250	2500	$250 \times 10 = 2500$
E.	100	1000	$100 \times 10 = 1000$
F.	50	500	$50 \times 10 = 500$