

Multiplying Whole Numbers

Lesson 9-1

It's Algebra!

Multiplying by Powers of 10

Ricky's job is shoveling snow from his front walk. The walk is 9 meters long. Find the length of Ricky's shoveling job in centimeters.

We want to know how many centimeters of walk Ricky has to shovel.

The walk is _____ meters long.

Each meter contains _____ centimeters. To find the length of the walk in centimeters, we multiply _____ by _____.

Study these multiplications:

$3 \times 1 = 3$	$4 \times 1 = 4$	$6 \times 2 = 12$	$9 \times 6 = 54$
$3 \times 10 = 30$	$4 \times 10 = 40$	$6 \times 20 = 120$	$9 \times 60 = 540$
$3 \times 100 = 300$	$4 \times 100 = 400$	$6 \times 200 = 1,200$	$9 \times 600 = 5,400$
$3 \times 1,000 = 3,000$	$4 \times 1,000 = 4,000$	$6 \times 2,000 = 12,000$	$9 \times 6,000 = 54,000$

Multiply the digits that are not zeros. The product has the same number of zeros as there are zeros in the factors.

$$9 \times 100 = \underline{\hspace{2cm}}$$

Ricky's front walk is _____ centimeters long.

Getting Started

Multiply.

1. $6 \times 100 = \underline{\hspace{2cm}}$

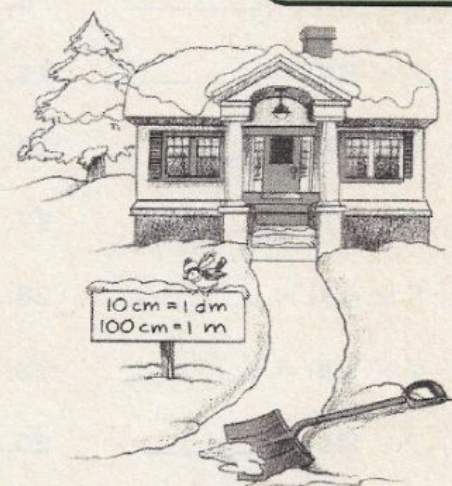
2. $5 \times 100 = \underline{\hspace{2cm}}$

3. $7 \times 1,000 = \underline{\hspace{2cm}}$

4. $9 \times 10 = \underline{\hspace{2cm}}$

5. $7 \times 6,000 = \underline{\hspace{2cm}}$

6. $6 \times 9,000 = \underline{\hspace{2cm}}$



Practice

Multiply.

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|------------------------------|------------------------------|------------------------------|
| 1. $5 \times 100 =$ _____ | 2. $6 \times 3,000 =$ _____ | 3. $9 \times 20 =$ _____ |
| 4. $7 \times 10 =$ _____ | 5. $7 \times 1,000 =$ _____ | 6. $3 \times 80 =$ _____ |
| 7. $5 \times 400 =$ _____ | 8. $2 \times 9,000 =$ _____ | 9. $9 \times 700 =$ _____ |
| 10. $8 \times 800 =$ _____ | 11. $3 \times 5,000 =$ _____ | 12. $8 \times 7,000 =$ _____ |
| 13. $4 \times 40 =$ _____ | 14. $7 \times 300 =$ _____ | 15. $2 \times 6,000 =$ _____ |
| 16. $6 \times 70 =$ _____ | 17. $5 \times 2,000 =$ _____ | 18. $9 \times 80 =$ _____ |
| 19. $5 \times 600 =$ _____ | 20. $8 \times 4,000 =$ _____ | 21. $9 \times 30 =$ _____ |
| 22. $7 \times 700 =$ _____ | 23. $6 \times 5,000 =$ _____ | 24. $4 \times 300 =$ _____ |
| 25. $7 \times 80 =$ _____ | 26. $7 \times 6,000 =$ _____ | 27. $4 \times 9,000 =$ _____ |
| 28. $5 \times 800 =$ _____ | 29. $3 \times 700 =$ _____ | 30. $8 \times 5,000 =$ _____ |
| 31. $2 \times 8,000 =$ _____ | 32. $9 \times 9,000 =$ _____ | 33. $6 \times 40 =$ _____ |
| 34. $2 \times 7,000 =$ _____ | 35. $4 \times 500 =$ _____ | 36. $9 \times 60 =$ _____ |
| 37. $6 \times 6,000 =$ _____ | 38. $4 \times 8,000 =$ _____ | 39. $9 \times 400 =$ _____ |

Problem Solving

Solve each problem.

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| 40. How many centimeters long is a table that is 9 decimeters in length? | 41. A carton of drinking straws contains 800 straws. How many straws are in 7 cartons? |
| 42. Computers cost \$2,000 each. How much will a school pay for 7 computers? | 43. A small car weighs 3,000 pounds. How much do 8 small cars weigh? |