BL12 DAY 2

WORKSHOP 6

Multiplying Decimals

Need Help? Go to...
Skill 8: Multiplying Decimals, p. SK9

Line Up Like Whole Numbers When multiplying decimals, multiply as if the decimal numbers were whole numbers. Then count the total number of decimal places to the right of the decimals in the factors. This number will be the number of decimal places in the product.

EXAMPLE 1

Multiply as if whole numbers, then count the total number of decimal places to put in the product.

18.1 ← factor		18.1	← 1 decimal place
× 0.35 ← factor	Multiply.	× 0.35	← + 2 decimal places
905		905	
543		543	
6335 ← product		6.335	← 3 decimal places

When to Write Zeros If the product does not have enough digits to place the decimal in the correct position, you will need to write in zeros. Start at the right of the product in counting the decimal places and write zeros at the left.

EXAMPLE 2

0.72	Count the decimal places,	0.72	← 2 decimal places
× 0.03	and write zeros at the left.	× 0.03	← + 2 decimal places
216		0.0216	← 4 decimal places

Concept CHECK

Complete the problems. Check your answers in the back of the book.

1.	2.	3.	4.
24.7	41.8	0.78	0.74
× 0.33	× 2.14	× 0.11	× 0.08

When to Round the Answer When you are multiplying amounts of money, you will want to round the answer off to the nearest cent. Remember to put a dollar sign in the answer.

EXAMPLE 3

$3.35 Round to the nearest cent. Put the dollar sign in the answer.

$\times$ 4.5

15075

$3.35 ← 2 places

$\times$ 4.5 ← + 1 place

15.075 ← 3 places

$3.35 $\times$ 4.5 = $15.075

= **$15.08 (rounded to the nearest cent)**

Moving the Decimal Point When multiplying by 10, 100, or 1,000, count the number of zeros and then move the decimal point to the right the same number of spaces.

EXAMPLE 4

a. 6.7 $\times$ 10 **b.** 5.24 $\times$ 100

Count the number of zeros. Move the decimal point accordingly.

a. 6.7 $\times$ 10 = 6.7 = **67** 10 has 1 zero; move decimal 1 place.

b. 5.24 $\times$ 100 = 5.24 = **524** 100 has 2 zeros; move decimal 2 places.

Concept CHECK

Complete the problems. Check your answers in the back of the book.

5. $4.15 $\times$ 8.5 **6.** 71.4 $\times$ 10 **7.** 41.861 $\times$ 100

Practice

8. 41.3 $\times$ 0.2

9. 78.4 $\times$ 0.3

10. 84.8 $\times$0.25

11. 51.7 $\times$0.72

12. 97.8 $\times$0.31

13. 51.7 $\times$0.67

14. 0.41 $\times$0.02

15. 0.74 $\times$0.08

16. 0.51 $\times$0.06

17. $5.15 $\times$ 85

18. $5.85 $\times$ 3.5

19. $3.35 $\times$ 7.6

Multiply by 10. **20.** 31.7 **21.** 5.71

Multiply by 100. **22.** 32.85 **23.** 41.786

Multiply by 1,000. **24.** 72.716 **25.** 7.1956

Multiply by 10,000. **26.** 6.9178 **27.** 3.42876