

# Multiplying Whole Numbers and Decimals

Find  $12.7 \times 2.4$ .

Estimate:  $13 \times 2 = 26$

Multiply as you would with whole numbers.

Count the total number of decimal places in both factors. Start at the right of the product. Move to the left the total number of decimal places in both factors. Sometimes you have to annex zeros to the left of the product to place the decimal point correctly.

$$\begin{array}{r}
 12.7 \leftarrow \text{one decimal place} \\
 \times 2.4 \leftarrow \text{one decimal place} \\
 \hline
 508 \\
 2540 \\
 \hline
 30.48 \leftarrow \text{two decimal places} \\
 \quad \quad \quad \curvearrowright \quad \quad \quad \text{from the right}
 \end{array}$$

Place the decimal point in each product.

1.  $1.2 \times 3.6 = 432$

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2.  $5.5 \times 3.77 = 20735$

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3.  $4.4 \times 2.333 = 102652$

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Find each product.

4.  $4 \times 5.2$

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5.  $2.7 \times 2.6$

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6.  $14.8 \times 3.7 \times 10$

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7.  $4.6 \times 0.3 \times 100$

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8.  $0.2 \times 0.61$

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9.  $17 \times 0.087$

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10.  $0.53 \times 12.8$

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11.  $8 \times 0.06$

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12. **Number Sense** Two factors are multiplied and their product is 34.44. One factor is a whole number. How many decimal places are in the other factor?

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13. **Writing in Math** How many decimal places will be in the product  $4.5 \times 0.007$ ? Explain.

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Place the decimal point in each product.

1.  $3 \times 6.892 = 20676$  \_\_\_\_\_ 2.  $0.3 \times 4.57 = 1371$  \_\_\_\_\_

Find each product.

3.  $14.3 \times 2.1 \times 8.9 =$  \_\_\_\_\_ 4.  $0.45 \times 0.01 =$  \_\_\_\_\_

5.  $67.1 \times 0.3 \times 0.4 =$  \_\_\_\_\_ 6.  $582.1 \times 4.2 =$  \_\_\_\_\_

7. **Reasoning** Show how to find the product of  $16.2 \times 4$  using addition.

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8. Which activity is 6 times faster than the fastest rowing speed?

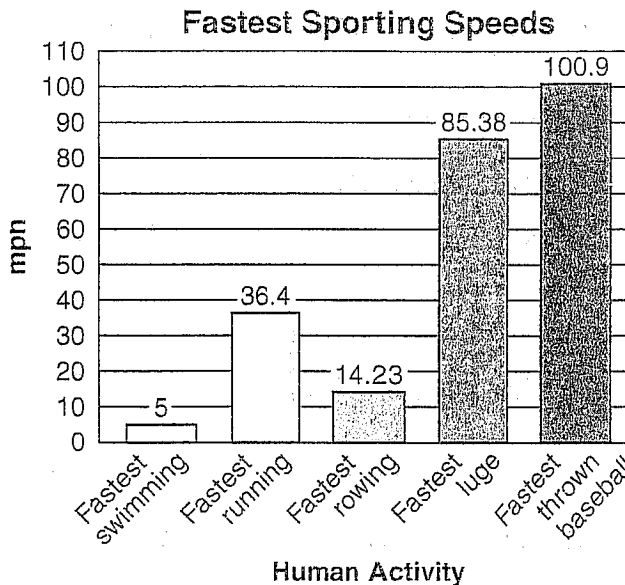
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9. The fastest speed a table tennis ball has been hit is 21.12 times faster than the speed for the fastest swimmer. What is the speed for the table tennis ball?

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10. How fast would 1.5 times the fastest rowing speed be?

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## Test Prep

11. Which is the product of  $241.82 \times 3.8$ ?

- A. 91.8916      B. 918.916      C. 9,189.16      D. 91,891.6

12. **Writing in Math** Explain why multiplying  $37.4 \times 0.01$  gives a product that is less than 37.4.

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