

Multiplying Two Decimals

Caroline earns \$2.40 per hour for babysitting her brother. She babysat last night for 3.25 hours. How much did she earn?

First, estimate your product so you can check for reasonableness.

$$\$2.40 \times 3.25$$



$\$2 \times 3 = 6$ Caroline earned about \$6.00.

Step 1: Multiply each factor by powers of 10 to create whole numbers. Then multiply these numbers.

$$2.40 \times 10^2 = 240$$

$$3.25 \times 10^2 = 325$$

$$\begin{array}{r} 325 \\ \times 240 \\ \hline 000 \\ 13,000 \\ +65,000 \\ \hline 78,000 \end{array}$$

Step 2: Because you multiplied each factor by 10^2 , you must divide your answer by 10^2 two times.

$$78,000 \div 10^4 = 7.8000$$

$$7.8000 = \$7.80$$

Caroline earned \$7.80 last night. Because \$7.80 is close to your estimate of \$6, your answer is reasonable.

Find each product. Check by estimating.

1. 0.2×4.6 _____ 2. 3.9×7.1 _____ 3. 8.54×0.1 _____

4. 0.53×6.4 _____ 5. 9.3×5.86 _____ 6. 0.37×4.4 _____

7. Jackie wants to buy a new CD player. It costs \$32.95. She has saved \$26 and has a coupon for 30% off the price. Does Jackie have enough money to buy the CD player?

Name _____

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Find each product.

1.
$$\begin{array}{r} 3.2 \\ \times 0.3 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 4.4 \\ \times 0.2 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 8.6 \\ \times 3.4 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 1.9 \\ \times 0.05 \\ \hline \end{array}$$

5. $0.79 \times 4.3 =$ _____

6. $0.8 \times 0.05 =$ _____

7. The product of 4.7 and 6.5 equals 30.55. What is the product of 4.7 and 0.65? 4.7 and 65?

8. What would be the gravity in relation to Earth of a planet with 3.4 times the gravity of Mercury?

9. The gravity of Venus is 0.35 times that of Jupiter. What is the gravity of Venus in relation to Earth's gravity?

**Relative (to Earth)
Surface Gravity**

Planet	Gravity
Mercury	0.39
Neptune	1.22
Jupiter	2.6

10. How many decimal places are in the product of a number with decimal places to the hundredths multiplied by a number with decimal places to the tenths?

A 2

B 3

C 4

D 5

11. Explain how you know the number of decimal places that should be in the product when you multiply two decimal numbers together.

