

Objective: Students will

- Be able to multiply decimals
- Solve word problems involving multiplication of decimals

Multiply: 3.24×-0.56 $\begin{array}{r} 3.24 \\ \times -0.56 \\ \hline \end{array}$	Multiply as if the numbers were whole numbers/integers: $\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ +16200 \\ \hline 18144 \end{array}$	$\begin{array}{r} 3.24 \\ \times -0.56 \\ \hline 1944 \\ +16200 \\ \hline -1.8144 \end{array}$ <p>Each number has two numbers behind the decimal.</p> <p>The product has four total decimal places after the decimal:</p> <p>Use integer rules to determine the final sign of the product.</p>
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EXAMPLE 1: Estimate then solve.

a) -6.4×0.8

b) 0.9×-5.4

Estimate: _____ Final Product: _____

Estimate: _____ Final Product: _____

c) 0.8×-1.6

d) 1.15×2.3

Estimate: _____ Final Product: _____

Estimate: _____ Final Product: _____

EXAMPLE 2: Solve.

- a) Every day the school cafeteria uses about 85.8 gallons of milk. How much milk does the school go through in a week?

- b) You want to mail a package that weighs 5.5 lb. If you have to pay \$1.40 per pound, how much will it cost to mail your package?

EXAMPLE 3: Estimate then solve.

a) -37.5×-1.2

b) -7.2×-12.5

Estimate: _____ Final Product: _____

Estimate: _____ Final Product: _____

c) 2.5×5

d) -4.5×-80

Estimate: _____ Final Product: _____

Estimate: _____ Final Product: _____

EXAMPLE 4: Use the distance formula $d=rt$ where d is distance, r is rate, and t is time to solve the following problems.

- a) Sarah was driving from Washington DC to Raleigh, NC. The average speed of her trip was 61.3 miles per hour. If her trip took her 4.25 hours, how far did she travel?
- b) Parker flew from Atlanta to New York City. If his plane speed averaged 453.6 miles per hour and his plane trip took 1.75 hours, what distance did he cover?
- c) Luca has to go to Seattle, Washington for business. He lives in Austin, TX. If his plane is going to average 503.47 miles per hour, and his plane ride is expected to take 4.23 hours, what distance does he have to go for his business trip?