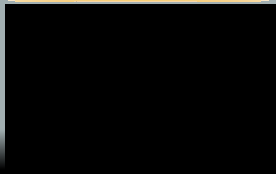


MasterMath

NUMBER SENSE

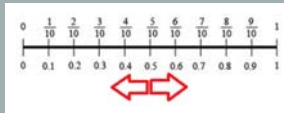
Multiplying Decimals





Multiplying Decimals

Estimating Decimal Values



Why Estimate Decimals?

1. Easier to work with
2. Exact answer may not be needed
3. Check your Work
4. Multiple Choice Tests

- .6 → 1
- .4 → 0
- 1.2 → 1
- 1.8 → 2

$1.7 \times 2 \approx 2 \times 2 = 4$

$4.3 \times 3.9 \approx 4 \times 4 = 16$

Multiplying Decimals

Estimating Decimal Values

Your mother gave you a shopping list and \$12, and asked you to go to the grocery for her. You gather the items on the list, then wonder if you have enough money. The items and their prices are listed. How much will your total be?

- a. \$10.62 b. \$14.68 c. \$12.81 d. \$8.99

Item	How Many	Unit Price	Unit Estimate	Total Estimate	Actual Total
Milk	1	\$4.25	\$4.00	\$4.00	\$4.25
Eggs	2	\$2.29	\$2.00	\$4.00	\$4.58
Bread	3	\$1.95	\$2.00	\$6.00	\$5.85
				\$14.00	\$14.68

Multiplying Decimals

Decimal Times Whole Number

$$\begin{array}{r}
 3.6 \\
 \times 4 \\
 \hline
 14.4
 \end{array}$$

← 1 decimal place

← 1 decimal place

Multiplying Decimals

Decimal Times Whole Number

$ \begin{array}{r} 3.6 \\ \times 4 \\ \hline 14.4 \end{array} $	$ \begin{array}{r} 4.32 \\ \times 3 \\ \hline 12.96 \end{array} $	$ \begin{array}{r} 2.111 \\ \times 3 \\ \hline 6.333 \end{array} $
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2 decimal places →

2 decimal places →

Multiplying Decimals

Decimal Times Decimal

$3.2 \times 1.2 = 3.84$
 $2.12 \times 1.11 = 2.3532$

Multiplied by

You try it!

3.12×2.3

Multiplied by

You try it!

3.12×2.3

$3.12 \times 2.3 = 7.176$
 $\approx \frac{3 \times 2}{6}$

Multiplied by

You try it!

100×3.75

Multiplying Dec

You try it!

100×3.75

← 2 zeros ← removes 2 decimals

375

Multiplying Dec

You try it!

Your car averages 24.5 MPG. You have 8.25 gallons of gas. How far can you drive?

Multiplying Dec

You try it!

Your car averages 24.5 MPG. You have 8.25 gallons of gas. How far can you drive?

$$\begin{array}{r} 8.25 \\ 24.5 \\ \hline 41.25 \\ 3300 \\ 1650 \\ \hline 202.125 \end{array}$$

Multiplying Decimals

You try it!

Now, try it on your own. Go to www.MasterMath.info download Multiplying Decimals from the Worksheets Page, and test your skill.

Multiplying Decimals
