

Tax, Tip and Discount

How to Multiply Decimals

How to Divide Decimals

A. Calculating tax:

1. Add the prices of all items to get a subtotal (this may already be done for you in some cases).

2. Find the tax amount by multiplying the tax rate times the subtotal.

Ex.: 7% of \$30.25; or $0.07 \times \$30.25 = 2.1175$, which rounds to \$2.12.

This is the **tax**.

3. Find the total cost by adding the tax to the subtotal.

Ex.: $\$30.25 + \$2.12 = \$32.37$

This is the **final cost**.

B. Calculating Tax and Tips:

1. Find the **subtotal**, if not already given to you, by adding together the original price of all items to be purchased.

2. Find the tax by multiplying the tax rate by the subtotal.

Ex.: 7% of \$42.50 = 2.975 ; or, $0.07 \times \$42.50 = \2.98 (rounded)

\$2.98 is the **tax**.

3. Find the total by adding the tax to the subtotal.

Ex.: $\$42.50 + \$2.98 = \$45.48$.

is the **total** bill.

This

4. Find the tip amount by multiplying the tip rate (somewhere between 15%-20%) by the total.

Ex.: 20% of \$45.48 = 9.096 ; or, $0.20 \times \$45.48 = \9.10 (rounded).

\$9.10 is the **tip**.

C. Calculating Discounts and Tax:

1. Find the amount of money that will be saved by multiplying the discount percentage by the original price.

Ex.: 30% of $\$23.99 = 7.197$; or $0.30 \times \$23.99 = \7.20 (rounded)
 $\$7.20$ is the **savings**.

2. Find the amount you will pay by subtracting the savings from the original price.

Ex.: $\$23.99 - \$7.20 = \$16.79$ This
 is the **sale price**.

3. If the item needs to be taxed, find the tax by multiplying the tax rate by the sale price.

Ex.: 7% of $\$16.79 = 1.1753$; or $0.07 \times \$16.79 = \1.18 (rounded)
 $\$1.18$ is the **tax**.

4. Find the final cost by adding the tax to the sales price.

Ex.: $\$16.79 + \$1.18 = \$17.97$ This
 is the **final cost**.

Click on the link below to watch a lesson on Discounts and Sales Prices

http://www.teachertube.com/view_video.php?viewkey=26240375a8ec3d18f549

D. Coupons and Percent Discount

1. When given a coupon money amount and asked to find the % discount, first identify the amount of money saved

Ex.: $\$0.50$ off

$\$4.00$ regular price

amount saved is $\$0.50$

2. Next, create fraction using the money amount saved as the numerator and the regular price as the denominator.

Turn the fraction into a decimal and into a percent.

Ex.: Fraction: $0.50/4.00$

$.50$ divided by $4.00 = .125$ (rounds to $.13$)

$.13 \times 100 = 13\%$

13% is the **Percent Discount**

E. Adding and Subtracting Decimals

1. Line up the decimal points in both values, and add or subtract as if both values are

whole numbers.

2. Bring the decimal point straight down into your final answer.

F. Multiplying Decimals

1. Multiply the values as if both are whole numbers (you do not need to line up the decimal points).
2. Count the total number of decimal places used in the values that were multiplied together. This is the number of decimal places that should be in the product.
3. To place the decimal into the product, count the correct number of digits starting all the way to the right and moving to the left.

G. Dividing Decimals

1. When dividing decimals, it is best to divide using the old-school method, but you can use any method you choose (except the calculator!!)
2. First, write the problem using the "house" division symbol (). Be sure that the dividend is on the inside and the divisor is on the outside.
3. If the outside number is a decimal, make it become a whole number by moving the decimal point over to the right by as many spaces as necessary.
4. Whatever you do to the outside needs to be done to the inside. So, if you moved the outside decimal to the right by two spaces, you also need to move the inside decimal to the right by two spaces. If the inside number is a whole number, place the decimal point at the end and add zeros. Then you can move the decimal point over.
5. Now divide using your preferred method (old-school is best). Either way, be sure to line up the digits in your quotient above the correct digits in the dividend.
6. If you have a remainder, add a zero to the inside number and use it to divide. If you use partial quotient, you will have to divide all over again with the extra zero at the end.
7. When you have the final quotient, insert a decimal by bringing it straight up from the

dividend.

Example: 

$$\boxed{\img alt="broken image icon" data-bbox="225 138 298 165}} = \boxed{\img alt="broken image icon" data-bbox="331 124 380 165}}$$