

Decimals

Comparing decimals:

Order the following decimals from smallest to largest: 0.2, 0.02, 0.21, 0.03, 0.022

Order the following decimals from smallest to largest: 0.2, -0.02, 0.21, -0.03, 1.022

Adding And Subtracting Decimals

ex. $1.2 + 0.51 + 3$

Step 1: Write numbers vertically and line up decimal points.

Step 2: Fill in any missing 0's.

Step 3: Add or subtract keeping the decimal point in the same place.

ex. $4.58 - 2.3$

ex. $1.91 - 0.281$

Multiplying Decimals ex. $2.3 \times .4$

Step 1: Ignore decimals and multiply as usual.

Step 2: Count total decimal places in all factors.

Step 3: Count the number of decimal places over from the right to the left of the answer and place decimal there.

ex. 12.3×5

ex. 5.12×3.4

Dividing Decimals

Step 1: If divisor has decimal places, move the decimal point over so that it is a whole number. Move the decimal point on the dividend the same number of places.

Step 2: Put decimal point directly above decimal point in dividend.

Step 3: Divide as usual.

Convert a decimal to a fraction

0.1 means 1 tenth

0.02 means 2 hundredths

0.014 means 14 thousandths

Converting a fraction to a decimal

$\frac{1}{2}$ means 1 divided by 2 which is .5

$\frac{3}{4}$ means 3 divided by 4 which is .75

$\frac{2}{3}$ means 2 divided by 3 which is .6666...

$\frac{4}{3}$ means 4 divided by 3 which is 1.3333...

Fractions

$$\frac{\text{numerator}}{\text{denominator}} \qquad \frac{\text{Part}}{\text{Whole}}$$

Adding and Subtracting:

Step 1: Make sure you have common denominators.

Step 2: Add or subtract numerators. Keep denominator.

Step 3: Simplify if you can.

Multiplying (you do not need common denominators)

Multiply numerators

Multiply denominators

Reduce if you can.

Dividing

Step 1: "Copy Dot Flip"

Step 2: Multiply numerator
Multiply denominator

Step 3: Reduce if you can.

Mixed Numbers

Adding/Subtracting: Leave as mixed numbers if
you can

Multiplying/Dividing: Convert to improper
fractions, then proceed as usual.