

Decimal Place

4.32567

The first number after the decimal point is called the first decimal place.

Each number has a position after the decimal point. 6 is the 4th number after the decimal point so 6 is in the 4th decimal place.

Subtraction and Addition

The method for adding and subtracting decimals is the same as when you add and subtract whole numbers. Just make sure your decimal points line up.

6.22 + 32.67

$$\begin{array}{r} 6.22 \\ + 32.67 \\ \hline 38.89 \end{array}$$

6.22 + 32.67 = 38.89

53.25 - 41.17

$$\begin{array}{r} 53.25 \\ - 41.17 \\ \hline 11.08 \end{array}$$

53.25 - 41.17 = 11.08

Multiplying and Dividing decimals by 10 and 100

When multiplying or dividing decimals by 10 or 100, think about moving the decimal point

7.324 × 10 = 73.24

7.324 ÷ 10 = 0.7324

When × 10, move the decimal point to the right one place.

When ÷ 10, move the decimal point to the left one place.

Move 2 places when multiplying or dividing by 100.

Comparing Decimals

Compare the size of decimals but looking at the numbers in the decimal places.

0.3218

0.32099

1. Compare the whole number part. They are both zero, so move to the first decimal place.
2. Compare the numbers in the 1st decimal place. They are the same so move to the 2nd decimal place.
3. Compare the numbers in the 2nd decimal place. They are the same so move to the 3rd decimal place.
4. Compare the numbers in the 3rd decimal place. 0.32099 has a 0 in the 3rd decimal place, whereas 0.3218 has a 1 in the 3rd decimal place, so 0.3218 is larger.

Multiplying Decimals

6.3 × 5.9

When multiplying decimals. Always start off with an approximation:

6.3 × 5.9 ≈ 6 × 6 = 36

Then multiply the numbers together without the decimal points. 63 × 59

$$\begin{array}{r} 63 \\ \times 59 \\ \hline 567 \\ + 3150 \\ \hline 3717 \end{array}$$

Given our estimate was 36, and we have worked out 63 × 59 = 3717, we can compare these and say that our answer is 37.17.

6.3 × 5.9 = 37.17

Dividing Decimals

155.45 ÷ 0.2

$$155.45 \div 0.2 = \frac{155.45 \times 10}{0.2 \times 10} = \frac{1554.5}{2}$$

$$\begin{array}{r} 0777.25 \\ 2 \overline{) 1151514.50} \end{array}$$

155.45 ÷ 0.2 = 777.25

If dividing by a decimal, multiply the numerator and denominator by 10 to leave a whole number in the denominator.

Once you have done that you can use the 'bus stop method'