

PreAlgebra
Skill-Builder #D-5
Adding Decimals of the Same Sign

Recall that when adding numbers of the same sign, we will keep the common sign and add their numerical values.

When adding decimals, you have to first align them by their place values. You can add zeros to make the decimals have the same number of decimal places. Then add the decimal numbers as if they are whole numbers, starting from the rightmost digits with the lowest place value and carry if necessary. Place the decimal point in the sum just below other decimal points and drop unnecessary zeros after the last nonzero digit in the decimal part.

Example 1:

Add: $45.03 + 27.124 + 126$

$$\begin{array}{r}
 45.03 \\
 27.124 \\
 126
 \end{array}
 \xrightarrow{\text{rewrite these numbers as}}
 \begin{array}{r}
 ^1 45.030 \\
 27.124 \\
 126.000 \\
 \hline
 198.154
 \end{array}$$

Answer: 198.154

Example 2:

Add: $15.238 + 7.012 + 2.6$

$$\begin{array}{r}
 ^1 ^1 15.238 \\
 7.012 \\
 2.600 \\
 \hline
 24.850
 \end{array}$$

Answer: 24.85 (drop unnecessary zeros after the last nonzero digit in the decimal part)

Example 3:

Simplify: $-23.012 - 5.23$ $\xleftrightarrow{\text{similar to}}$ $(-23.012) + (-5.23)$
 adding two numbers of the same sign

Method:
 Add their numerical values
 and keep the common sign.

$$\begin{array}{r}
 -23.012 \\
 -5.230 \\
 \hline
 -28.242
 \end{array}$$

Answer: -28.242

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1. Simplify: $27.92 + 163.093$

2. Simplify: $-58.863 - 12.237$

3. Simplify: $5.69 + 8.723 + 108$

4. Simplify: $-23.417 - 9.8 - 126.78$

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Answers

1. 191.013
2. -71.1
3. 122.413
4. -159.997

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