

# Adding Decimals Using Estimation



In this tutorial, I'll explore various estimation strategies for adding decimal values.

A student uses the following estimation strategy to determine the sum of two decimal values.

- How would I explain their approach for estimating the sum?
- How would I describe the *whole number* part of a decimal?
- Using this solution approach, how would I predict my estimated sum would compare to the actual sum?
- How would I describe the decimal amounts not included when using this approach for estimating the sum?

$3.42 + 5.84$   
 $3.42 + 5.84$   
 $3 + 5 = 8$

I'll compare the above estimation strategy... to another approach.

- How would I explain this second estimation strategy?
- How is this strategy different to the previous approach?
- How would I explain and demonstrate rounding a decimal to the nearest whole number?
- How does my estimated sum using this second solution approach compare with the previous estimated sum?

$3.42 + 5.84$   
 $3.42 + 5.84$   
 $3 + 6 = 9$



I'll consider another approach for estimating the sum of two decimal values.

- How would I explain the calculation being performed in the first step of this estimation strategy?
- How would I explain the second calculation being performed in this estimation strategy?
- How would I explain and demonstrate rounding a decimal number to the nearest tenth?
- How would I explain the calculation that I need to perform to determine my estimated sum?
- How would I compare this third estimating strategy with the two previous approaches? How would I describe what is similar? What's different?

3.42 + 5.84

$3.42 + 5.84 = 8$

$3.40 + 5.80 = 1.2$

$8 + 1.2 = 9.2$



How would I explain and demonstrate using the previous strategies to estimate the following sum?

$$1.614 + 4.172 + 2.351$$

## *Adding Decimals Using Estimation-Skills Checklist*



I can identify and describe the whole number and decimal digits of a decimal value

I can explain and demonstrate how I use whole numbers to estimate the sum of two or more decimals

I can explain and demonstrate rounding a decimal to the nearest

- Whole number
- -Tenth

I can explain and demonstrate how I use rounding to estimate the sum of two or more decimals

# *Adding Decimals Using Estimation-Worksheet*



$2ab + 61c$   
 $2ab + 61c$

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