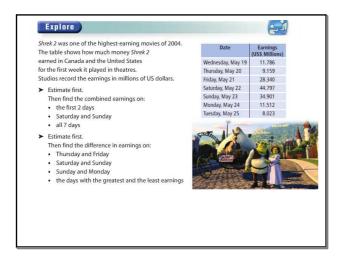
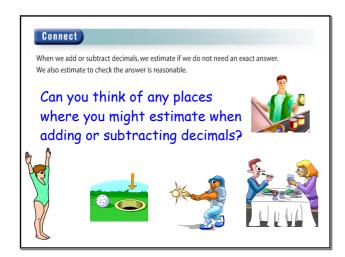


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## Here's how to estimate adding/subtracting decimals using Front End Estimation

### Example

Ephram is a long-distance runner. His practice distances

for 5 days last week are shown in the table.
a) How far did Ephram run in 5 days last week?
b) How much farther did Ephram run on Tuesday than
on Thursday?

Day	Distance (km)
Monday	8.85
Tuesday	12.25
Wednesday	10.9
Thursday	9.65
Friday	14.4

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#### **A Solution**

a) 8.85 + 12.25 + 10.9 + 9.65 + 14.4 Use front-end estimation. Add the whole-number part of each decimal. Think: 8 + 12 + 10 + 9 + 14 = 53Ephram ran about 53 km.



Day	Distance (km)
Monday	8.85
Tuesday	12.25
Wednesday	10.9
Thursday	9.65
Friday	14.4

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### How far did he actually run?

Add. Write each number with the same number of decimal places. Use zeros as placeholders: 8.85, 12.25, 10.90, 9.65, 14.40 Record the numbers without the decimal points. Add as you would whole numbers.

965

Since the estimate is 53 km, place the decimal point after the first 2 digits; that is, between the 6 and the 0. Ephram ran 56.05 km.







**b)** How much farther did Ephram run on Tuesday than on Thursday?

Distance (km)
8.85
12.25
10.9
9.65
14.4

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b) Ephram ran 12.25 km on Tuesday and 9.65 km on Thursday. Estimate.

12.25 - 9.65

Think: 12 - 9 = 3

Ephram ran about 3 km farther on Tuesday.



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# How much further did he actually run?

Subtract. Align the numbers.
Subtract as you would whole numbers.



2.6 is close to the estimate 3, so the answer is reasonable. Ephram ran 2.6 km farther on Tuesday than on Thursday.