

# Lesson 2-3

Wednesday, August 14, 2019 12:20 PM

Name \_\_\_\_\_

**Solve & Share**

Gloria rode her bicycle 0.75 mile in the morning and 1.10 miles in the afternoon. How many miles did Gloria ride in all? *Solve this problem any way you choose.*

You can use appropriate tools, such as decimal grids, to help determine how many miles Gloria rode.

*m*-total miles

0.75 mi	1.10 mi
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$0.75 + 1.10 = m$

$m = 1.85$       1.85 miles

$$\begin{array}{r} 0.75 \\ + 1.10 \\ \hline 1.85 \end{array}$$

**Lesson 2-3**  
Use Models to Add and Subtract Decimals

**I can ...**  
model sums and differences of decimals.

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Mathematical Practices MP.1, MP.3, MP.4, MP.5

**Look Back!** © MP.1 Make Sense and Persevere How can you check that your answer is correct?

Subtract:  $1.85 - 1.10 = x$       or  $1.85 - 0.75 = x$

$x = 0.75$

Name \_\_\_\_\_

Teaching Tool  
**12**

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### Essential Question: How Can You Use Grids to Add Decimals?

Use the table at the right to find the total monthly cost of using the dishwasher and the DVD player.

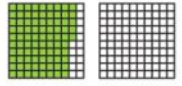


A model can be used to add decimals.

Device	Monthly Cost
DVD player	\$0.40
Microwave oven	\$3.57
Ceiling light	\$0.89
Dishwasher	\$0.85

**B** Use hundredths grids to add  $\$0.85 + \$0.40$ .

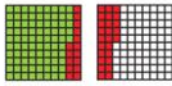
It costs  $\$0.85$  to use the dishwasher per month.



Shade 85 squares to show  $\$0.85$ .

**C** It costs  $\$0.40$  to use the DVD player per month.

Use a different color and shade 40 more squares to show  $\$0.40$ . Count all of the shaded squares to find the sum.



$\$0.85 + \$0.40 = \$1.25$

The monthly cost of using the dishwasher and DVD player is  $\$1.25$ .

**Convince Me!** **MP.3 Critique Reasoning** For the example above, Jesse said, "The total monthly cost of using the ceiling light and the dishwasher was  $\$0.74$ ." Is Jesse correct? Explain.

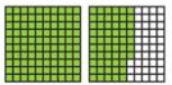
### Another Example

You can subtract decimals with grids.

Use hundredths grids to find  $1.57 - 0.89$ .

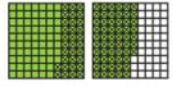
#### Step 1

Shade 1 grid and 57 squares to show 1.57.



#### Step 2

Cross out 8 columns and 9 squares of the shaded grid. The difference is the squares that are shaded but not crossed out.



$1.57 - 0.89 = 0.68$

### Guided Practice

#### Do You Understand?

- MP.4 Model with Math** Explain how to use grids to find the difference between the monthly cost of using the DVD player and the dishwasher. Then find the difference. *\$0.45*

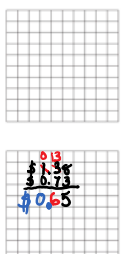
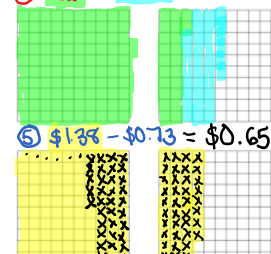
Shade in 86 squares for  $\$0.86$ .  
Then cross out 40 squares for  $\$0.40$ .  
The 45 remaining squares is the difference  $\$0.45$ .

#### Do You Know How?

In 2–7, use hundredths grids to add or subtract.

- $1.22 + 0.34$  *1.56*
- $1.22 + 0.34$  *1.56*
- $1.56 + 0.41$
- $1.73 - 0.94$
- $1.38 - 0.73$
- $0.47 - 0.21$
- $2.02 + 0.8$  *2.82*

Name \_\_\_\_\_  $1.22 + 0.34 = 1.56$

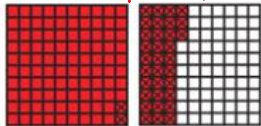


The 45 remaining squares is the difference \$0.45.

Complete 9, 10, 14, & 19

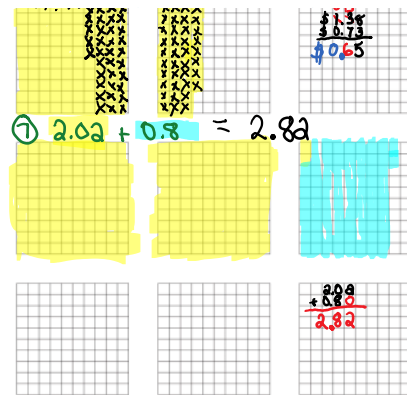
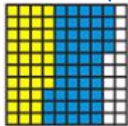
9.  $\$1.33 - \$0.35$

\$0.98



10.  $\$0.37 + \$0.47$

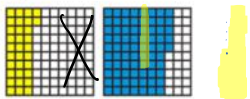
\$0.84



14. Is the sum of  $0.46 + 0.25$  less than or greater than one? Explain.

Less than. Both addends are less than 0.50 so their sum is less than 1.

19. Each shaded area in the grids below represents a decimal.



$$\begin{array}{r} 0.32 \\ + 0.75 \\ \hline 1.07 \end{array}$$

Part A

What is the sum of the decimals?

1.07

Part B

Explain how you found your answer.

I took the 0.32 from the first grid and filled in the second grid and 7 squares at the right of the first grid.