

## Lesson 12: Subtract Strategically

- Let's consider when to use algorithms and when to use other strategies to subtract.

### Warm-up: Number Talk: Threes

Find the value of each expression mentally.

- $2 \times 6$

- $3 \times 6$

- $2 \times 7$

- $3 \times 7$

## 12.1: How Would You Subtract?

Use a strategy or algorithm of your choice to find the value of each difference. Show your reasoning. Organize it so it can be followed by others.

1.  $451 - 329$

2.  $382 - 190$

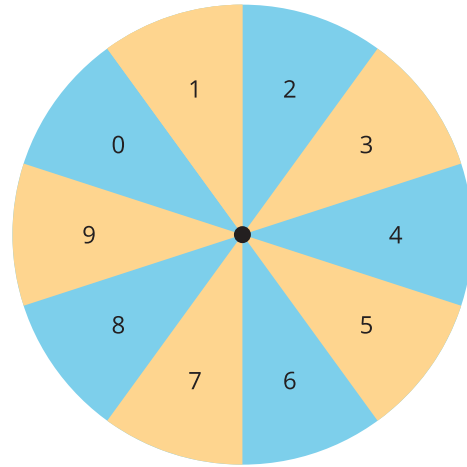
3.  $924 - 285$

$$4. 600 - 478$$

$$5. 505 - 417$$

## 12.2: Greatest Difference, Smallest Difference

1. Decide with your partner whether you will try to make the greatest difference or smallest difference.
2. Take turns spinning and recording a digit in the hundreds, tens, or ones place. Continue until your numbers are complete.
3. Find the difference.
4. Compare your values.
5. Write a comparison using  $>$ ,  $<$ , or  $=$ .
6. Play again.



<p>my numbers</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div>	<p>my partner's numbers</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div>
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## Section Summary

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In this section, we learned algorithms to subtract numbers within 1,000. We also learned that we can choose whether to use an algorithm or another strategy for subtracting based on the numbers.

$$\begin{array}{r}
 400 \quad 130 \\
 \cancel{500} + \cancel{30} + 8 \\
 - 100 + 50 + 6 \\
 \hline
 300 + 80 + 2
 \end{array}$$

step 1

$$\begin{array}{r}
 538 \\
 - 156 \\
 \hline
 2
 \end{array}$$

step 2

$$\begin{array}{r}
 413 \\
 \cancel{5} \cancel{3} 8 \\
 - 156 \\
 \hline
 2
 \end{array}$$

step 3

$$\begin{array}{r}
 413 \\
 \cancel{5} \cancel{3} 8 \\
 - 156 \\
 \hline
 82
 \end{array}$$

step 4

$$\begin{array}{r}
 413 \\
 \cancel{5} \cancel{3} 8 \\
 - 156 \\
 \hline
 382
 \end{array}$$