



# 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.

- $2 \times 6$

- $3 \times 6$

- $2 \times 7$

- $3 \times 7$



## Activity 1

### How Would You Subtract?

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

1.  $451 - 329$

2.  $382 - 190$



3.  $924 - 285$

4.  $600 - 478$

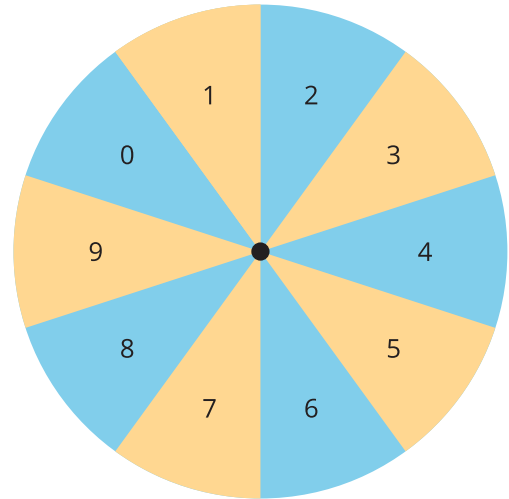
5.  $505 - 417$



## Activity 2

### Greatest Difference, Least Difference

1. Decide with your partner whether you will try to make the greatest difference or the least 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.



my numbers

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

my partner's numbers

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

difference

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

my numbers

my partner's numbers

difference

my numbers

my partner's numbers

difference

| my numbers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | my partner's numbers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="margin: 0 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> </div>                                                                        | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="margin: 0 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> </div> |
| <div style="text-align: center; margin-bottom: 10px;">difference</div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="margin: 0 20px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 5px;"></div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Section B Summary

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.

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

**step 1**

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

**step 2**

$$\begin{array}{r}
 \text{4 } \text{13} \\
 \cancel{5} \cancel{3} 8 \\
 - 156 \\
 \hline
 2
 \end{array}$$

**step 3**

$$\begin{array}{r}
 \text{4 } \text{13} \\
 \cancel{5} \cancel{3} 8 \\
 - 156 \\
 \hline
 82
 \end{array}$$

**step 4**

$$\begin{array}{r}
 \text{4 } \text{13} \\
 \cancel{5} \cancel{3} 8 \\
 - 156 \\
 \hline
 382
 \end{array}$$