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.

- 2×6
- 3×6
- 2×7
- 3×7

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. $924 - 285$

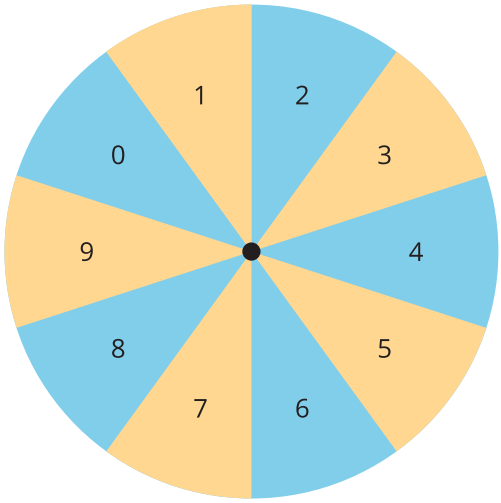
4. $600 - 478$

5. $505 - 417$

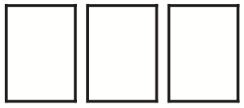
Activity 2

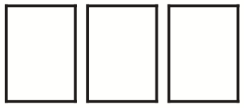
Greatest Difference, Least Difference

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
☐☐☐ ☐☐☐	☐☐☐ ☐☐☐

difference
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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.

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

step 1

$$
\begin{array}{rrrr}
 & 5 & 3 & 8 \\
- & 1 & 5 & 6 \\
\hline
 & & & 2
\end{array}
$$

step 2

$$
\begin{array}{rrrr}
 & \overset{4}{\cancel{5}} & \overset{13}{\cancel{3}} & 8 \\
- & 1 & 5 & 6 \\
\hline
 & & & 2
\end{array}
$$

step 3

$$
\begin{array}{rrrr}
 & \overset{4}{\cancel{5}} & \overset{13}{\cancel{3}} & 8 \\
- & 1 & 5 & 6 \\
\hline
 & & 8 & 2
\end{array}
$$

step 4

$$
\begin{array}{rrrr}
 & \overset{4}{\cancel{5}} & \overset{13}{\cancel{3}} & 8 \\
- & 1 & 5 & 6 \\
\hline
 & 3 & 8 & 2
\end{array}
$$