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. $924 - 285$

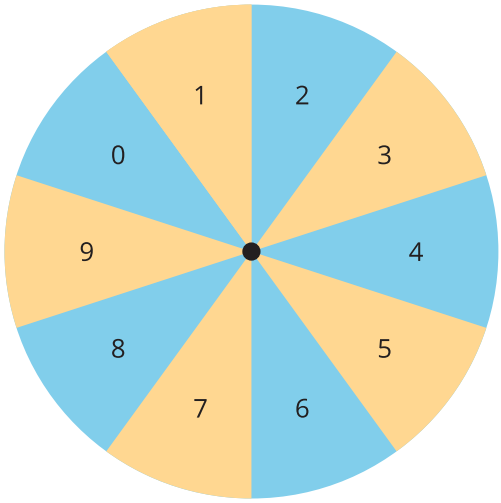
4. $600 - 478$

5. $505 - 417$

Activity 2

Greatest Difference, Least Difference

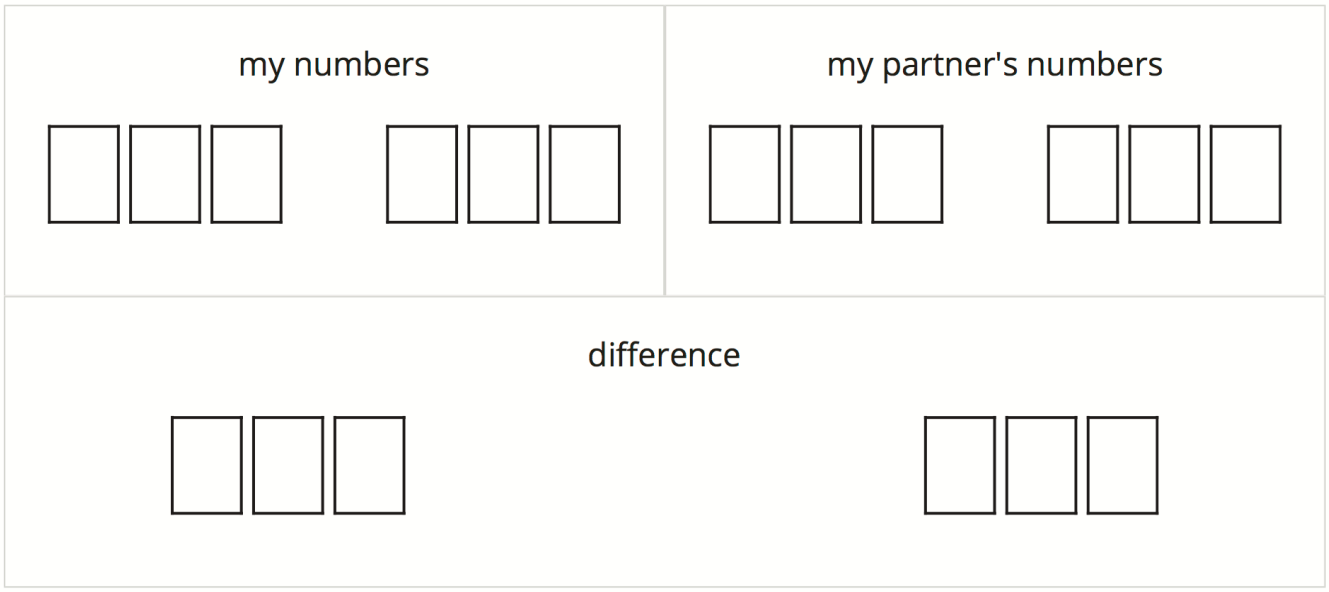
1. Decide with your partner whether you will try to make the greatest difference or the least difference
2. Take turns spinning and recording a digit in the hundreds, tens, or ones place. Continue until your numbers are complete.
3. Find the difference.
4. Compare your values.
5. Write a comparison,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



my numbers	my partner's numbers
□□□ □□□	□□□ □□□
difference	
□□□	□□□

my numbers	my partner's numbers
☐☐☐ ☐☐☐	☐☐☐ ☐☐☐
difference	
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my numbers	my partner's numbers
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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.

$$\begin{array}{rr} & \begin{array}{ccccc} 400 & & 130 & & \\ (\cancel{5}00 & + & \cancel{3}0 & + & 8) \end{array} \\ - & (100 & + & 50 & + \quad 6) \\ \hline & 300 & + & 80 & + \quad 2 \end{array}$$

step 1

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

step 2

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

step 3

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

step 4

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