

Chapter 5 Math Link: Wrap It Up!

This worksheet will help you with the Wrap It Up! on page 203.

1. a) Complete the table for this number trick.

Guess a Number 1

| Step | Arithmetic | Algebra |
|------------------------------------------------------------------------|------------|-------------------|
| Step 1 Pick a three-digit number with no repeating digits. | 326 | xyz |
| Step 2 Arrange the digits in decreasing order. | 632 | zxy |
| Step 3 Arrange the digits in increasing order. | | yxz |
| Step 4 Subtract the number in Step 3 from the number in Step 2. | | $zxy - yxz = abc$ |
| Step 5 Identify two numbers in the difference. | | b and c |
| Step 6 Determine the third number in the difference. | | $b - c = a$ |

- b) Look at the middle digit of the difference in Step 4. Then, look at the other two digits. What do you notice?
2. Now, try designing your own trick. Use some or all of the spaces for steps that are provided. You can add more spaces if necessary.

Guess a Number 2

| Step | Arithmetic | Algebra |
|------------------------------|------------|---------|
| Step 1 Pick a number. | | n |
| Step 2 | | |
| Step 3 | | |
| Step 4 | | |
| Step 5 | | |
| Step 6 | | |