

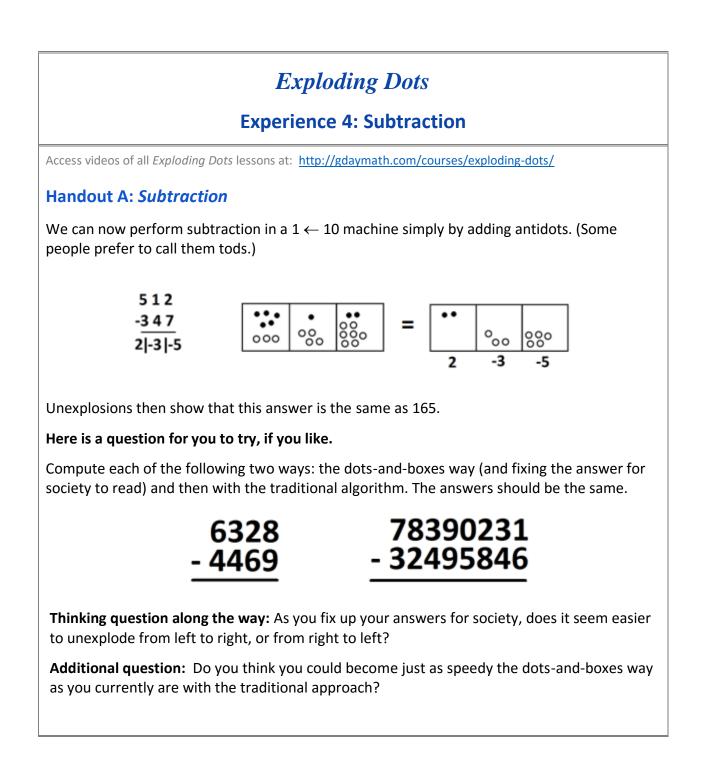
# **Exploding Dots**<sup>™</sup>

# HANDOUTS

## **Experience 4:** Subtraction

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### **Solutions to Handout A**

6328 - 4469 = 2 | -1 | -4 | -1 = 1 | 9 | -4 | -1 = 1 | 8 | 6 | -1 = 1 | 8 | 5 | 9 = 1859

$$78390231 - 32495846 = 4 | 6 | -1 | 0 | -5 | -6 | -1 | -5$$
  
= 4 | 5 | 9 | 0 | -5 | -6 | -1 | -5  
= 4 | 5 | 8 | 10 | -5 | -6 | -1 | -5  
= 4 | 5 | 8 | 9 | 5 | -6 | -1 | -5  
= 4 | 5 | 8 | 9 | 4 | 4 | -1 | -5  
= 4 | 5 | 8 | 9 | 4 | 3 | 9 | -5  
= 4 | 5 | 8 | 9 | 4 | 3 | 8 | 5 = 45894385

I personally find it much easier to do the unexplosions from left to right.



## **Exploding Dots**

### **Experience 4: Subtraction**

Access videos of all *Exploding Dots* lessons at: <u>http://gdaymath.com/courses/exploding-dots/</u>

### Handout B: WILD EXPLORATIONS

Here are some "big question" investigations you might want to explore, or just think about. Have fun!

**EXPLORATION 1: IS THERE ANOTHER WAY TO INTERPRET THE DOTS-AND-BOXES ANSWERS?** 

When Sunil saw,

5	1	2
-3	4	7
2 ·	-3	-5

he wrote on his paper the following lines:

200
-30
-5

He then said that the answer has to be 165.

- a) Can you explain what he is seeing and thinking?
- b) What would Sunil likely write on the page for 7109 3384?

#### EXPLORATION 2: WHAT ABOUT NEGATIVE ANSWERS?

How might you handle and interpret this subtraction problem?

148
<u>- 677</u>

