Problem of the Week

Number sense is significant and is often stressed by educators when discussing student learning. I wanted to provide tasks that would address basic operations while highlighting mathematical vocabulary – sum, difference, product. The tasks are meant to be open-ended so that discussion can support understanding.

Be mindful that during these prompts, it is important the teacher listens to student conversations and asks questions that illicit student thinking.

Primary

Danika was asked to represent two different numbers using 18 base-ten blocks that met the following criteria:

- When you subtract the smallest number from the largest number, the difference is approximately 30.
- When you add the two numbers, the sum is greater than 100.

Danika said that to meet this goal, she must use more rods than units. Is Danika correct? How do you know?

Elementary

Juan was asked to represent two different numbers using 12 base-ten blocks that met the following criteria:

- One number is a whole number while the other is a decimal number.
- When you subtract the smallest number from the largest number, the difference is approximately 90.

Juan said that to meet this goal, the decimal number must be less than 10. Is Juan correct? How do you know?

Intermediate

Taylor had two different numbers. Both numbers had less digits to the left of the decimal than they did to the right of the decimal. When Taylor subtracted the smallest number from the largest, the difference was approximately 10. When Taylor multiplied the two numbers, the product was approximately 650. What would be the sum of Taylor's two numbers?