Lesson 11: Different Partial Quotients

- Let's use what we know about multiplication and place value to find quotients.

Warm-up: Notice and Wonder: Ways to Record

What do you notice? What do you wonder?

Clare's strategy:

$$364 \div 13$$

$13 \times 10 = 130$

$13 \times \boxed{20} = 260$

$13 \times \boxed{5} = 65$

$13 \times \boxed{3} = 39$

$$\begin{array}{r} 364 \\ -260 \\ \hline 104 \\ -65 \\ \hline 39 \\ -39 \\ \hline 0 \end{array}$$

Jada's strategy:

$$130 \div 13 = 10$$
$$130 \div 13 = 10$$
$$65 \div 13 = 5$$
$$39 \div 13 = 3$$
$$\overline{364 \div 13 = 28}$$

11.1: Division Expressions

Take turns:

1. Choose a set of expressions that, when added together, is equal to $308 \div 14$. Not all expressions will be used.

2. Explain to your partner how you know that your cards represent a sum that is equal to $308 \div 14$.

   (Pause for teacher directions.)

3. Choose one of the sets of expressions whose sum is equal to $308 \div 14$ and use it to find the value of $308 \div 14$.

11.2: Choose Your Own Partial Quotients

For each expression, choose one of the partial quotients and, beginning with that expression, find the value of the quotient.

1. $360 \div 15$

   - $150 \div 15$

   - $300 \div 15$

   - $60 \div 15$

2. $945 \div 45$

   - $45 \div 45$

   - $450 \div 45$

   - $900 \div 45$

3. $992 \div 31$

   - $62 \div 31$

   - $341 \div 31$

   - $310 \div 31$

4. How did you decide which partial quotient to use to begin finding the quotient? Did you change your mind with any of the problems?