



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

$$\begin{array}{r}
 364 \div 13 \\
 13 \times 10 = 130 \quad \begin{array}{r} 364 \\ -260 \\ \hline 104 \end{array} \\
 13 \times \begin{array}{l} 20 \\ \hline 5 \end{array} = 260 \quad \begin{array}{r} 104 \\ -65 \\ \hline 39 \end{array} \\
 13 \times 5 = 65 \quad \begin{array}{r} 39 \\ -39 \\ \hline 0 \end{array} \\
 13 \times 3 = 39
 \end{array}$$

Jada's strategy

$$\begin{array}{r}
 130 \div 13 = 10 \\
 130 \div 13 = 10 \\
 65 \div 13 = 5 \\
 39 \div 13 = 3 \\
 \hline
 364 \div 13 = 28
 \end{array}$$

Activity 1

Division Expressions

Take turns:

1. Choose a set of expressions that when added together have the same value as $308 \div 14$. Not all expressions will be used.
2. Explain to your partner how you know that your cards represent a sum that has the same value as $308 \div 14$.

(Pause for teacher directions.)

3. Choose one of the sets of expressions. Use it to find the value of $308 \div 14$.



Activity 2

Choose Your Own Partial Quotients

Choose one of the partial-quotients for each expression. Use this partial quotient to begin finding 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 and begin with a different partial quotient? Explain or show your reasoning.