Unit 9, Lesson 6

What's the Quotient?

Let's find some quotients of multi-digit numbers.

Warm-up

Number Talk: Divide by 3

Find the value of each expression mentally.

- $48 \div 3$
- $480 \div 3$
- $528 \div 3$
- $5{,}280 \div 3$

Activity 1

Unfinished Divisions

Here are 4 calculations to find the value of $7{,}465 \div 5$, but each calculation is unfinished.

Complete at least 2 of the unfinished calculations.

$$\begin{array}{r} 200 \\ 80 \\ 13 \\ 5\,\overline{)7{,}465} \\ -\quad 65 \\ \hline 7{,}400 \\ -\quad 400 \\ \hline 7{,}000 \\ -\quad 1{,}000 \\ \hline \end{array}$$

$$\begin{array}{r} 400 \\ 1{,}000 \\ 5\,\overline{)7{,}465} \\ -\quad 5{,}000 \\ \hline 2{,}465 \\ -\quad 2{,}000 \\ \hline \end{array}$$

$$\begin{aligned} 5{,}000 \div 5 &= 1{,}000 \\ 60 \div 5 &= 12 \\ 5 \div 5 &= 1 \end{aligned}$$

7,465 is a little less than 7,500.

$$\begin{aligned} 7{,}500 \div 5 &= 1{,}500 \\ 35 \div 5 &= 7 \end{aligned}$$

Activity 2

Where Do We Begin?

1. Jada and Noah are finding the value of $3{,}681 \div 9$. Jada says to start by dividing 81 by 9. Noah says to start by dividing 3,600 by 9.

   a. Explain why each suggestion is helpful for finding the quotient.

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   b. Find the value of $3{,}681 \div 9$. Show your reasoning.

2. Find the unknown numbers to show a correct division calculation.

703		
3	4	6
100	10	70
6) 4,218	4)	7)
− 3,000	− 400	− 700
1,218		
− 600	− 100	− 700
618		
	− 40	− 490
18	16	42
	− 16	− 42
0	0	0

3. Consider the expression $5{,}016 \div 8$.

   a. What would you do to start finding the value of the quotient?

   b. Show how you would find the value with as few steps as possible.