

Lesson 6: What's the Quotient?

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

Warm-up: Number Talk: Divide by 3 and by 6

Find the value of each expression mentally.

- $48 \div 3$

- $480 \div 3$

- $528 \div 3$

- $5,280 \div 3$

6.1: Unfinished Divisions

Here are four calculations to find the value of $7,465 \div 5$, but each one is unfinished.

Complete at least two of the unfinished calculations. Be prepared to explain how you know what to do to complete the work.

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

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

$$\begin{array}{r}
 5,000 \div 5 = 1,000 \\
 60 \div 5 = \quad 12 \\
 5 \div 5 = \quad \quad 1
 \end{array}$$

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

$$\begin{array}{r}
 7,500 \div 5 = 1,500 \\
 35 \div 5 = \quad \quad 7
 \end{array}$$

6.2: 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 start by dividing 3,600 by 9.

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

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

2. Find the missing numbers such that each calculation shows a correct division calculation.

703	3	100	6	4,218	- 3,000	1,218	- 600	618	18	0

4	10	4	4	400	- 400	100	40	16	16	0

6	70	7	700	- 700	700	- 700	490	42	42	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.