

## 4.NBT.6 Division: Big 7

I can divide up to 4-digits by 1-digit using equations that show the partial quotient. I can explain what I am doing when I solve a division equation.

# HOW

### STEP 1 $875 \div 6 = ?$

$$6 \overline{) 875} \quad 6 \times 100 = 600$$

About how many 6's can fit into 875? Start with a multiple of 6 that is easy to think about. Like  $6 \times 100 = 600$

Write the EQUATION that you thought of on the right side of the line.

Put a box around the 100. This is a PARTIAL QUOTIENT.

Write the 600 under the dividend 875.

### STEP 2

$$\begin{array}{r} 6 \overline{) 875} \\ - 600 \\ \hline 275 \end{array} \quad 6 \times 100 = 600$$

Subtract the 600 from the 875 to see the difference.

To stay organized, draw a line.

Write the difference (the partial dividend) under the line.

Extend the vertical line.

### STEP 3

$$\begin{array}{r} 6 \overline{) 875} \\ - 600 \\ \hline 275 \\ - 240 \\ \hline \end{array} \quad \begin{array}{l} 6 \times 100 = 600 \\ 6 \times 40 = 240 \end{array}$$

Think: About how many 6's can fit into 275? Start with a multiple of 6 that is easy to think about. Like  $6 \times 40 = 240$

Write the EQUATION that you thought of on the right side of the line.

Put a box around the 40. This is a PARTIAL QUOTIENT.

Write the 240 under the partial dividend 275.

### STEP 4

$$\begin{array}{r} 6 \overline{) 875} \\ - 600 \\ \hline 275 \\ - 240 \\ \hline 35 \end{array} \quad \begin{array}{l} 6 \times 100 = 600 \\ 6 \times 40 = 240 \end{array}$$

Subtract the 240 from the 275 to see the difference.

To stay organized, draw a line.

Write the difference (the partial dividend) under the line.

Extend the vertical line.

### STEP 5

$$\begin{array}{r} 6 \overline{) 875} \\ - 600 \\ \hline 275 \\ - 240 \\ \hline 35 \\ - 30 \\ \hline \end{array} \quad \begin{array}{l} 6 \times 100 = 600 \\ 6 \times 40 = 240 \\ 6 \times 5 = 30 \end{array}$$

Think: About how many 6's can fit into 35?  $6 \times 5 = 30$

Write the EQUATION that you thought of on the right side of the line.

Put a box around the 5. This is a PARTIAL QUOTIENT.

Write the 30 under the partial dividend 35.

### STEP 6

$$\begin{array}{r} 6 \overline{) 875} \\ - 600 \\ \hline 275 \\ - 240 \\ \hline 35 \\ - 30 \\ \hline 5 \end{array} \quad \begin{array}{l} 6 \times 100 = 600 \\ 6 \times 40 = 240 \\ 6 \times 5 = 30 \end{array}$$

Subtract the 30 from the 35 to see the difference.

To stay organized, draw a line.

Write the difference (the partial dividend) under the line. The difference is SMALLER than the divisor, so it becomes the remainder.

Add up all the boxed partial quotient to get your FINAL QUOTIENT.

# PRACTICE

**PRACTICE:** Show division using EQUATIONS.

$$96 \div 4 = N \quad n = \underline{\hspace{2cm}}$$

4	96	4 x	=
		4 x	=

Remember to write the whole multiplication equations with the divisor, 4.

Remember to draw a box around your partial quotients.

At the end, add up the partial quotients to find the final quotient.

**PRACTICE:** Show division using EQUATIONS.

$$195 \div 5 = N \quad n = \underline{\hspace{2cm}}$$

5	195	5 x	=
		5 x	=

Remember to write the whole multiplication equations with the divisor.

Remember to draw a box around your partial quotients.

At the end, add up the partial quotients to find the final quotient.

**PRACTICE:** Show division using EQUATIONS.

$$223 \div 3 = N \quad n = \underline{\hspace{2cm}}$$

3	223	3 x	=
		3 x	=

Remember to write the whole multiplication equations with the divisor.

Remember to draw a box around your partial quotients.

At the end, add up the partial quotients to find the final quotient.