G5-M2-Lesson 23

1. Divide. Then check using multiplication.

   a. $4{,}753 \div 22$

I look at the dividend of 4,753 and estimate. 40 hundreds ÷ 20 = 2 hundreds, or 4,000 ÷ 20 = 200. I record 2 in the hundreds place. There's a remainder of 3 hundreds.

I look at 35 tens and estimate 20 tens ÷ 20 = 1 ten, or 200 ÷ 20 = 10. I record 1 in the tens place. There's a remainder of 13 tens.

I look at 133 ones and estimate 120 ones ÷ 20 = 6 ones, or 120 ÷ 20 = 6. I record 6 in the ones place. There's a remainder of 1 one.

$$\begin{array}{r} 2 \\ 22\overline{)4,753} \\ -\ 44 \\ \hline 3 \end{array} \qquad \begin{array}{r} 21 \\ 22\overline{)4,753} \\ -\ 44 \\ \hline 35 \\ -\ 22 \\ \hline 13 \end{array} \qquad \begin{array}{r} 216\ R1 \\ 22\overline{)4,753} \\ -\ 44 \\ \hline 35 \\ -\ 22 \\ \hline 133 \\ -\ 132 \\ \hline 1 \end{array}$$

Check: I check my answer by multiplying the quotient and the divisor, 216×22, and then add the remainder of 1.

$$\begin{array}{r} 216 \\ \times\ 22 \\ \hline 432 \\ +\ 4320 \\ \hline 4,752 \end{array} \qquad \begin{array}{r} 4,752 \\ +\ 1 \\ \hline 4,753 \end{array}$$

After checking, I get 4,753, which does match the original dividend. So I know I solved it correctly.

I look at the dividend of 3,795 and estimate 360 tens ÷ 60 = 6 tens, or 3600 ÷ 60 = 60. I record 6 in the tens place. There's a remainder of 7 tens.

b. $3,795 \div 62$

$$\begin{array}{r} 6 \\ 62\overline{)3,795} \\ -\ 372 \\ \hline 7 \end{array}$$

$$\Rightarrow$$

$$\begin{array}{r} 61\ R\,13 \\ 62\overline{)3,795} \\ -\ 372 \\ \hline 75 \\ -\ 62 \\ \hline 13 \end{array}$$

I look at 75 and estimate 60 ones ÷ 60 = 1 one, or 60 ÷ 60 = 1. I record 1 in the ones place. The quotient is 61 with a remainder of 13.

Check: I check my answer by first multiplying the quotient and the divisor, and then I add the remainder.

$$\begin{array}{r} 61 \\ \times\ 62 \\ \hline 122 \\ +\ 3660 \\ \hline 3,782 \end{array}$$

$$\begin{array}{r} 3,782 \\ +\ 13 \\ \hline 3,795 \end{array}$$

2. 1,292 balloons were shared equally among 38 students. How many balloons did each student receive?

I use division, 1,292 ÷ 38, to find how many balloons each student receives.

$$\begin{array}{r} 34 \\ 38\overline{)1,292} \\ -\ 114 \\ \hline 152 \\ -\ 152 \\ \hline 0 \end{array}$$

Each student received 34 balloons with 0 balloons left over.

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