Divide Larger Numbers with Remainders

You can use money to model problems.

Divide 25 ÷ 2.

Step 1 You can use dimes and pennies to show 25 cents.

Step 2 Divide the money into 2 equal groups. Put 1 dime in each group.

Step 3 Put two pennies in each group. There is one penny left over.

Step 4 Count the dimes and pennies in one group. The penny left over is the remainder.

\[

division\text{-}\hspace{2mm}2\hspace{2mm}5
\
\text{rest}\hspace{2mm}2
\
\text{rest}\hspace{2mm}1
\
\
12\hspace{2mm}R1
\
2\hspace{2mm}|\hspace{2mm}25
\
-\hspace{2mm}20
\
-\hspace{2mm}4
\
-\hspace{2mm}1
\
\
\text{Solution:} \hspace{2mm}25 \div 2 = 12 \hspace{1mm} R1
\
\
\]

Divide. Use multiplication to check.

1. \(3\hspace{2mm}|\hspace{2mm}94\)
2. \(8\hspace{2mm}|\hspace{2mm}88\)
3. \(2\hspace{2mm}|\hspace{2mm}69\)
4. \(57 \div 5\)
5. \(37 \div 2\)
6. \(66 \div 3\)

Writing Math Sandy decided to redo the example box problem above. She used a quarter instead of the dimes and pennies. Do you think this was a good choice? Why or why not?