

G4-M1-Lesson 15

Use the standard subtraction algorithm to solve the problem below.

$$\begin{array}{r}
 1. \quad 6 \ 0 \ 0, \ 4 \ 0 \ 0 \\
 - \quad 7 \ 2, \ 6 \ 4 \ 9 \\
 \hline
 \end{array}$$

I am not ready to subtract.
I must regroup.

Sample Student A Response:

$$\begin{array}{r}
 9 \ 9 \ 13 \ 9 \\
 5 \ 10 \ 10 \ 3 \ 10 \ 10 \\
 - \ 6 \ 0 \ 0, \ 4 \ 0 \ 0 \\
 \hline
 5 \ 2 \ 7, \ 7 \ 5 \ 1
 \end{array}$$

I work unit by unit, starting with the ones. I can rename 4 hundreds as 3 hundreds 10 tens. Then, I rename 10 tens as 9 tens 10 ones. I'll continue to decompose until I am ready to subtract.

Sample Student B Response:

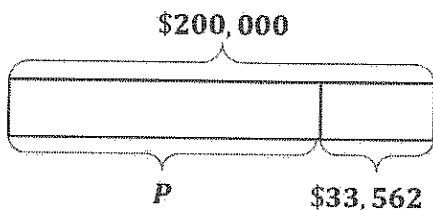
$$\begin{array}{r}
 13 \\
 5 \ 9 \ 9 \ 3 \ 9 \ 10 \\
 - \ 6 \ 0 \ 0, \ 4 \ 0 \ 0 \\
 \hline
 5 \ 2 \ 7, \ 7 \ 5 \ 1
 \end{array}$$

I need more ones. I unbundle 40 tens as 39 tens 10 ones.

I need more than 3 hundreds to subtract 6 hundreds. I can rename the 600 thousands as 599 thousands 10 hundreds. 10 hundreds plus 3 hundreds is 13 hundreds.

Use a tape diagram and the standard algorithm to solve the problem below. Check your answer.

2. The cost of the Johnston's new home was \$200,000. They paid for most of it and now owe \$33,562. How much have they already paid?



$$\$200,000 - \$33,562 = P$$

Sample Student A Response:

$$\begin{array}{r}
 9 \quad 9 \quad 9 \quad 9 \\
 1 \quad 10 \quad 10 \quad 10 \quad 10 \\
 \cancel{2} \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \\
 - \quad 3 \quad 3, \quad 5 \quad 6 \quad 2 \\
 \hline
 1 \quad 6 \quad 6, \quad 4 \quad 3 \quad 8
 \end{array}$$

There are a lot of decompositions!

Sample Student B Response:

$$\begin{array}{r}
 1 \quad 9 \quad 9 \quad 9 \quad 9 \quad 10 \\
 \cancel{2} \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \quad \cancel{0} \\
 - \quad 3 \quad 3, \quad 5 \quad 6 \quad 2 \\
 \hline
 1 \quad 6 \quad 6, \quad 4 \quad 3 \quad 8
 \end{array}$$

I rename 20,000 tens as 19,999 tens 10 ones.

$$\begin{array}{r}
 1 \quad 6 \quad 6, \quad 4 \quad 3 \quad 8 \\
 + \quad 3 \quad 3, \quad 5 \quad 6 \quad 2 \\
 \hline
 1 \quad 1 \quad 1 \quad 1 \quad 1 \\
 2 \quad 0 \quad 0, \quad 0 \quad 0 \quad 0
 \end{array}$$

I check my answer by adding the two parts. The sum is equal to the cost of the new home. My answer is correct!

The Johnstons have already paid \$166,438.