

- 1) 7 hundreds, 12 tens, 12 ones
- 2) 11 hundreds, 11 tens, 11 ones
- 4) $8256 - 7145$, $8256 - 6589$, $8003 - 6007$

5) a) (3A, p 30) # 5b

$$\begin{array}{r} 3 15 \\ 5 \ 6 \ \cancel{4} \ 5 \\ - 1 \ 3 \ 1 \ 7 \\ \hline 4 \ 3 \ 2 \ 8 \end{array}$$

thousands	hundreds	tens	ones
0000φ	000 φφφ	00φⓄ	00000 6000φ φφφφφ
4	3	2	8

b) (3A, p 30) # 7b

$$\begin{array}{r} 14 \\ 3 \ \cancel{4} \ 10 \\ 8 \ \cancel{4} \ 5 \ 0 \\ - 4 \ 2 \ 6 \ 2 \\ \hline 4 \ 1 \ 8 \ 8 \end{array}$$

thousands	hundreds	tens	ones
0000 φφφφ	0φφⓄ	0000Ⓞ	0000 0000 0000 φφφ
4	1	8	8

c) (3A, p 32) # 12d "REGROUPING ACROSS ZEROS"

$$\begin{array}{r} 4 \ 9 \ 9 \\ 5 \ \cancel{0} \ \cancel{0} \ 0 \\ - 2 \ 0 \ 7 \ 4 \\ \hline 2 \ 9 \ 2 \ 6 \end{array}$$

thousands	hundreds	tens	ones
00φφⓄ	00000 0000Ⓞ	00φφφ φφφφⓄ	00000 0φφφφ
2	9	2	6

As the picture shows, we changed
1 thousand for 9 hundreds, 9 tens, and 10 ones

$\begin{array}{r} 4 \ 9 \ 9 \ 10 \\ 5 \ \cancel{0} \ \cancel{0} \ \cancel{0} \\ - 2 \ 0 \ 7 \ 4 \\ \hline 6 \end{array}$ <p>Subtract the ones.</p>	$\begin{array}{r} 4 \ 9 \ 9 \ 10 \\ 5 \ \cancel{0} \ \cancel{0} \ \cancel{0} \\ - 2 \ 0 \ 7 \ 4 \\ \hline 2 \ 6 \end{array}$ <p>Subtract the tens</p>	$\begin{array}{r} 4 \ 9 \ 9 \ 10 \\ 5 \ \cancel{0} \ \cancel{0} \ \cancel{0} \\ - 2 \ 0 \ 7 \ 4 \\ \hline 9 \ 2 \ 6 \end{array}$ <p>Subtract the hundreds</p>	$\begin{array}{r} 4 \ 9 \ 9 \ 10 \\ 5 \ \cancel{0} \ \cancel{0} \ \cancel{0} \\ - 2 \ 0 \ 7 \ 4 \\ \hline 2 \ 9 \ 2 \ 6 \end{array}$ <p>Subtract the thousands</p>
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6) (3A, p.29-33) for the problems with chip models drawn

#2 unbundling a ten

#3 unbundling a hundred

#4 unbundling a thousand

#6 unbundle a ten, then a hundred

#8 unbundle a ten, then a hundred, then a thousand

#10 REGROUPING ACROSS ZEROS

Exchange 1 thousand for 9 hundreds, 9 tens, and 10 ones

#13 First REGROUP ACROSS A ZERO

Change 1 hundred for 9 tens and 10 ones
Then unbundle a thousand

8) SAM is simply subtracting the SMALLER digit from the LARGER digit in each column (without caring which number the digits come from)

JULIE didn't reduce the number of tens from '10' to '9' when she unbundled 1 ten for 10 ones

(Alternatively 1 hundred is exchanged for 9 tens and 10 ones)
(Julie incorrectly left this as 10 tens and 10 ones)

FRANK's main mistake is he unbundled 1 hundred as 10 ones instead of 10 tens.