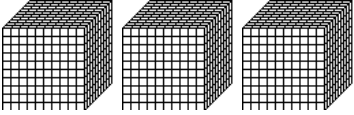
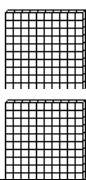
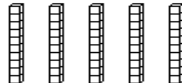
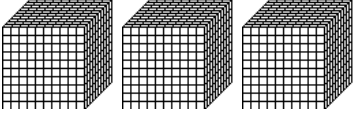
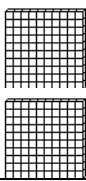
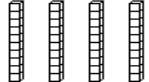
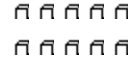
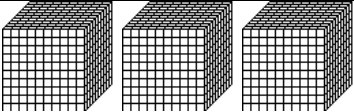

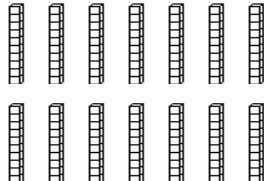




Subtracting a 3-digit number from a 4-digit number

Modelling Subtraction (Decomposition/Renaming/regrouping):

There were 3 250 people at a match. If 784 left at half time, how many watched the second half?

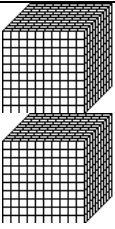
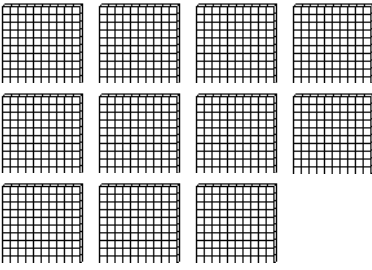

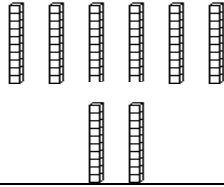
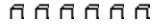
Materials				Words	Symbols
Thousands	Hundreds	Tens	Units	There were 3250 people in the stadium and 784 left at half time.	$\begin{array}{r} 3250 \\ - 784 \\ \hline \end{array}$
					
	7	8	4		
Thousands	Hundreds	Tens	Units	0 (zero) take away* 4 I cannot do using whole numbers. But I can exchange 1of my tens for 10 units. (That leaves me with four tens and gives me 10 units altogether.)	$\begin{array}{r} 32\overset{4}{5}0 \\ - 784 \\ \hline \end{array}$
					
	7	8	4		

Thousands	Hundreds	Tens	Units
			
	7	8	4 
			

10 units take away 4 units equals 6 units.

$$\begin{array}{r} 3 \overset{1}{2} \overset{14}{5} \overset{1}{0} \\ - \quad 7 \quad 8 \quad 4 \\ \hline \quad \quad \quad 6 \end{array}$$

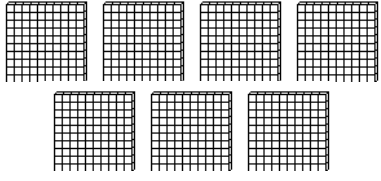
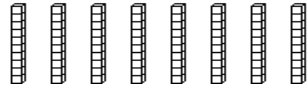
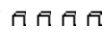
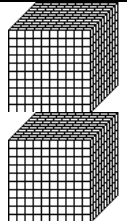
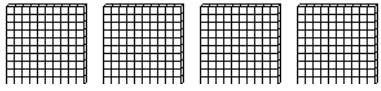
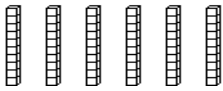
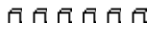
4 tens take away 8 tens, I cannot do (using whole numbers). But I can exchange 1 hundred for 10 tens. That leaves me with one hundred and gives me 14 tens altogether.

Thousands	Hundreds	Tens	Units
			
	7	8	4 
			

14 tens take away 8 tens equals 6 tens.

$$\begin{array}{r} 2 \overset{3}{3} \overset{11}{2} \overset{14}{5} \overset{1}{0} \\ - \quad \quad 7 \quad 8 \quad 4 \\ \hline \quad \quad \quad 6 \quad 6 \end{array}$$

1 hundred take away 7 hundreds, I cannot do (using whole numbers). But I can exchange 1 thousand for 10 hundreds. That leaves me with 2 thousands and gives me 11 hundreds altogether.

Thousands	Hundreds	Tens	Units
	7 	8 	4 
			
2	4	6	6

11 hundreds take away 7 hundreds equals 4 hundreds. 2 thousands take away 0 thousands equals 2.

Therefore I know that there were 2,466 people present for the second half of the match.

$$\begin{array}{r}
 \overset{2}{3} \overset{11}{2} \overset{14}{5} \overset{10}{0} \\
 - \quad \quad 7 \quad 8 \quad 4 \\
 \hline
 2 \quad 4 \quad 6 \quad 6
 \end{array}$$

*Remember that subtraction can mean both “take away” and “difference.” In the context of this problem I have chosen to use the language of “take away.” However, it would also be fine to use the term “minus” instead of “take away.” Using “minus” has the advantage that it can be used for both meanings of subtraction.