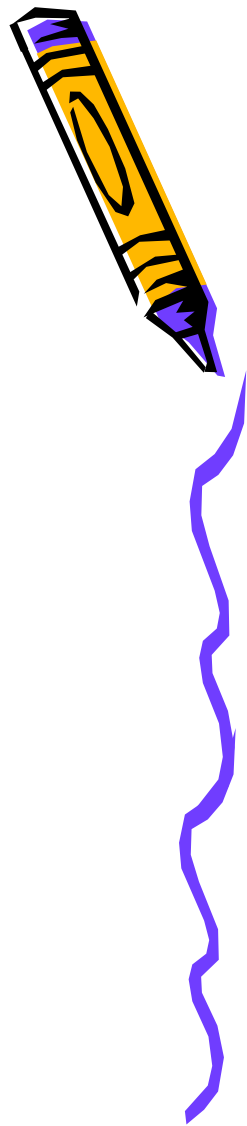




Numeracy Workshop  
KS2  
Thursday 1st November

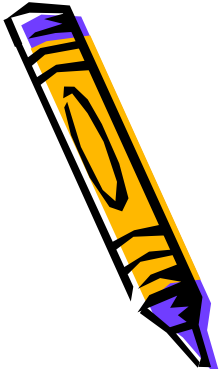


# Addition

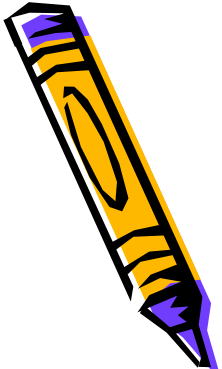
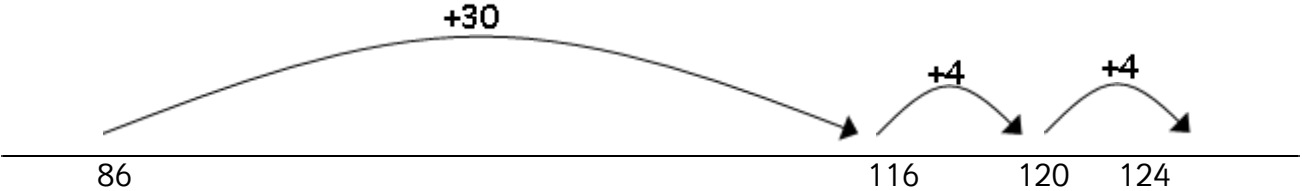


# Number lines

$$34 + 23 = 57$$

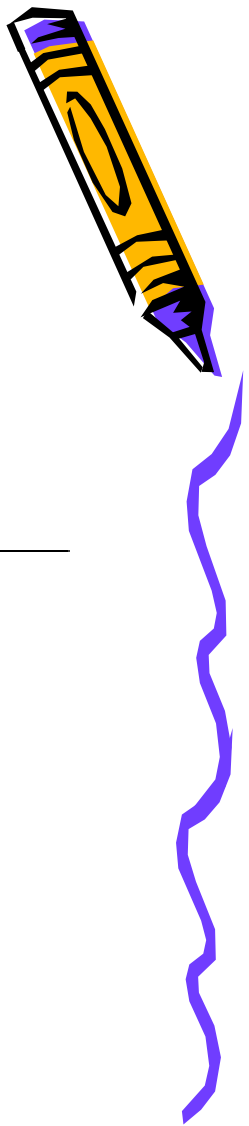
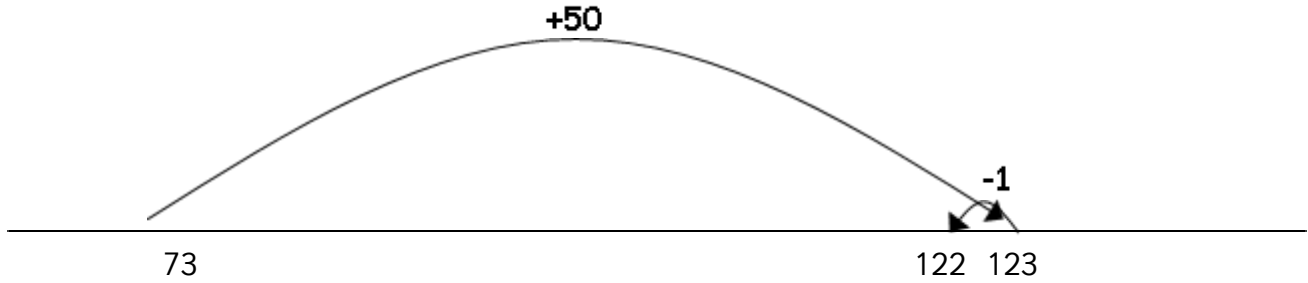


$$38 + 86 = 124$$



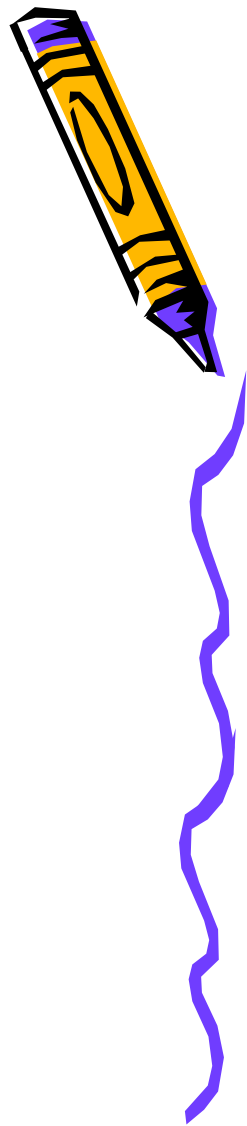
Compensation

$$49 + 73 = 122$$



## Partitioning

$$\begin{aligned} 47 + 76 &= 40 + 7 \\ &= \underline{70} + 6 \\ 110 + 13 &= 123 \end{aligned}$$



$$\begin{aligned} 375 + 567 &= 300 + 70 + 5 \\ &\quad \underline{500 + 60 + 7} \\ &= 800 + 130 + 12 = 942 \end{aligned}$$

Try this method on your whiteboards to answer the following question.

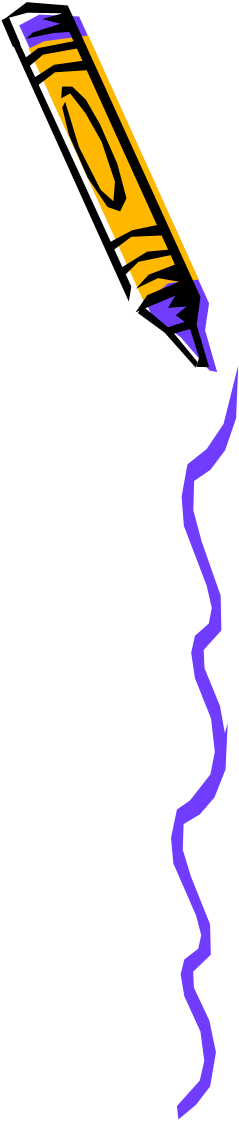
$$329 + 217 =$$



# Expanded column method

$$\begin{array}{r} 47 \\ + 76 \\ \hline 110 \\ 13 \\ \hline 123 \end{array}$$

$$\begin{array}{r} 47 \\ + 76 \\ \hline 13 \\ \hline 110 \\ \hline 123 \end{array}$$



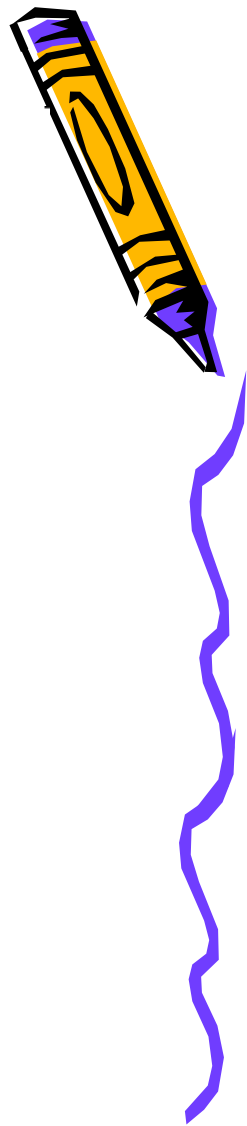


## Column method

$$\begin{array}{r} 625 \\ + 48 \\ \hline 673 \\ 1 \end{array}$$

$$\begin{array}{r} 783 \\ + 42 \\ \hline 825 \\ 1 \end{array}$$

$$\begin{array}{r} 367 \\ + 85 \\ \hline 452 \\ 11 \end{array}$$

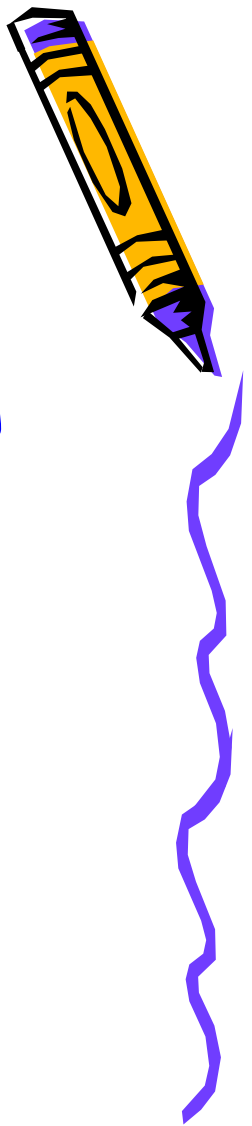


Try this method on your whiteboards to answer the following question.

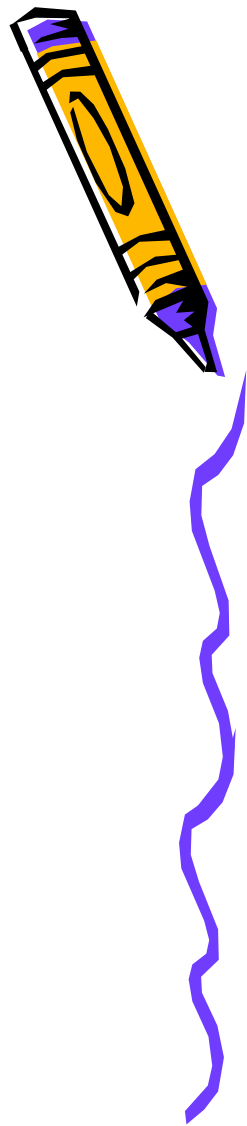
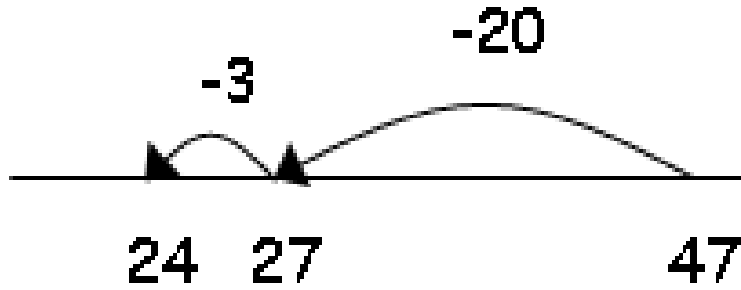
$$219 + 43 =$$



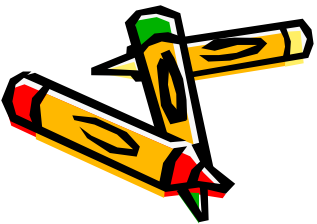
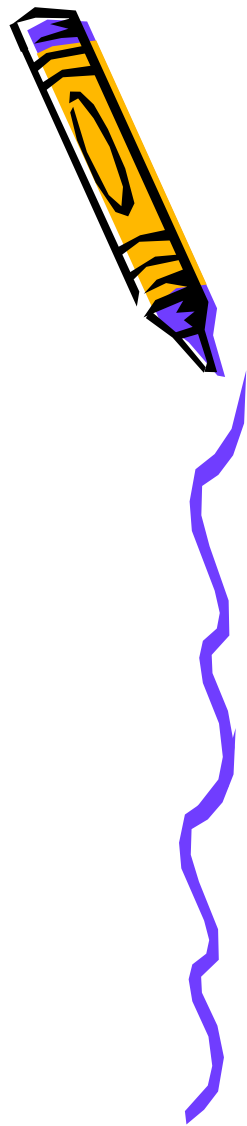
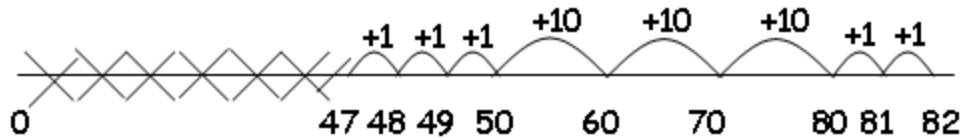
# Subtraction



$$47 - 23 = 24$$



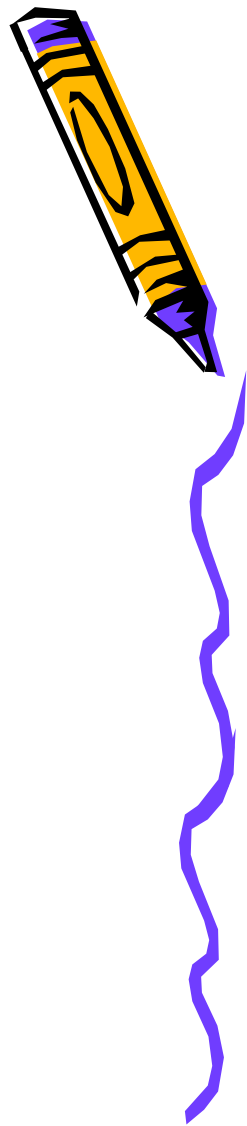
$$82 - 47 = 35$$



$$\begin{array}{r} 89 \\ - 57 \\ \hline \end{array}$$

=

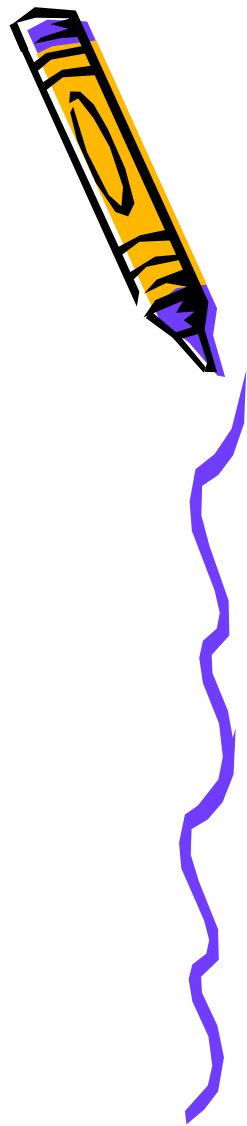
$$\begin{array}{r} 80 \rightarrow 9 \\ 50 \rightarrow 7 \\ \hline 30 \rightarrow 2 = 32 \end{array}$$



$$\begin{array}{r}
 71 \\
 - 46 \\
 \hline
 \end{array}
 = 
 \begin{array}{r}
 70 \rightarrow 1 \\
 - 40 \rightarrow 6 \\
 \hline
 \end{array}$$

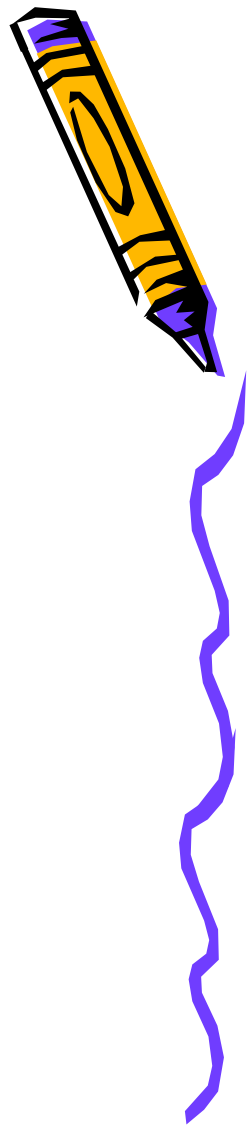
$$\begin{array}{r}
 60 \rightarrow 11 \\
 - 40 \rightarrow 6 \\
 \hline
 20 \rightarrow 5
 \end{array}$$

$$\begin{array}{r}
 60 \\
 \cancel{70} \rightarrow 11 \\
 - 40 \quad + \quad 6 \\
 \hline
 20 \rightarrow 5
 \end{array}
 = 25$$



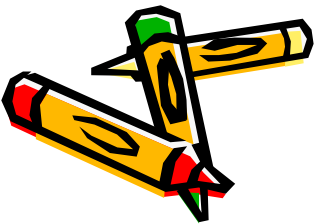
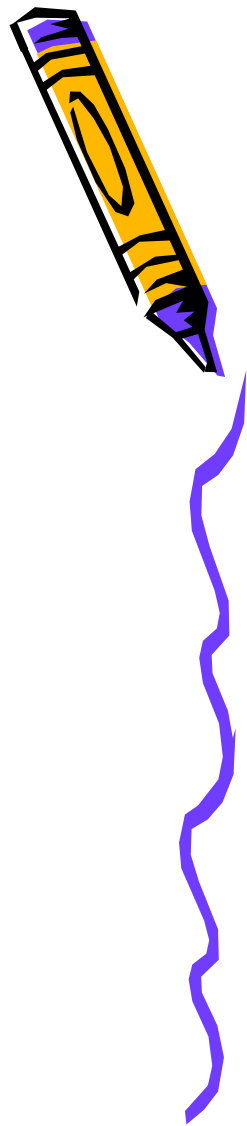
$$\begin{array}{r} 754 \\ - 86 \\ \hline \end{array}$$

$$\begin{array}{r} 600 \qquad 140 \\ \cancel{700} \rightarrow \cancel{50} \rightarrow 14 \\ - \quad \quad \quad 80 \rightarrow 6 \\ \hline 600 \rightarrow 60 \rightarrow 8 = 668 \end{array}$$



$$\begin{array}{r} 6141 \\ \cancel{754} \\ - 86 \\ \hline 668 \end{array}$$

$$\begin{array}{r} 754 \\ - 86 \end{array}$$





$$\begin{array}{r} 754 \\ - 86 \\ \hline 4 \text{ to make } 90 \\ 10 \text{ to make } 100 \\ 600 \text{ to make } 700 \\ 50 \text{ to make } 750 \\ \hline 4 \text{ to make } 754 \\ \hline 668 \end{array}$$

