

Correcting addition errors

It is easy to make errors when calculating.

The additions below contain some deliberate errors. Try to find where the errors are. If possible discuss these with other people.

1. Compensation

- a. $435 + 229$, use $435 + 230$ and subtract 1 giving the answer $665 - 1 = 664$
b. $269 + 328$, use $270 + 330$ and subtract 3 giving the answer $600 - 3 = 597$

2. Partitioning

- a. $245 + 111 = 200 + 100 + 40 + 10 + 5 + 1 = 400 + 50 + 6 = 456$
b. $326 + 227 = 300 + 200 + 20 + 20 + 6 + 7 = 500 + 40 + 3 = 543$

3. Formal methods

- a. $215 + 121$

$$\begin{array}{r} 215 \\ 112 \\ \hline 327 \end{array}$$

- b. $316 + 118$

$$\begin{array}{r} 316 \\ 118 \\ \hline 424 \end{array}$$

4. Changing order using number bonds to make it easier to add

- a. $227 + 35 + 73 + 15 = 227 + 73 + 53 + 15 = (227 + 73) + (53 + 15) = 300 + 68 = 368$
b. $621 + 24 + 109 + 116 = 621 + 109 + 24 + 110 = (621 + 109) + (24 + 110) = 730 + 134 = 864$