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 + 228, use 435 + 230 and subtract 1 giving the answer 665 - 1 = 664

b. 269 + 328, use 270 + 330 and subtract 3 giving the answer 500 - 3 = 497

2. Partitioning

a. 245 + 111 = 200 + 100 + 40 + 10 + 5 + 1 = 400 + 50 + 6 = 455

b. 326 + 227 = 300 + 200 + 20 + 20 + 6 + 7 = 500 + 40 + 3 = 543

3. Formal methods

a. 215 + 121

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

b. 316 + 118

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

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