



Correcting addition errors - answers

The errors are underlined and in bold.

1. Compensation

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

Should take 2 (because 228 to 230 is 2) giving 663.

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

Should be $600 - 3 = 597$.

2. Partitioning

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

Should be $300 + 50 + 6 = 356$

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

Should be $500 + 40 + 13 = 553$.

3. Formal methods

a. $215 + 121$

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

Should be 336 when the 1 and 2 are written in the correct order.

b. $316 + 118$

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

Should be 434 carrying the ten from $6 + 8 = 14$.

4. Changing order

a. $227 + 35 + 73 + 15 = 227 + 73 +$ **53** $+ 15 = (227 + 73) + (53 + 15) = 300 + 68 = 368$

Should be $227 + 73 + 35 + 15 = 300 + 50 = 350$.

b. $621 + 24 + 109 + 116 = 621 + 109 + 24 +$ **110** $= (621 + 109) + (24 + 110) = 730 + 134 = 864$

Should be $621 + 109 + 24 + 116 = 730 + 140 = 870$.