

Addition Strategies

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In Grade 4, you are using different strategies to solve addition problems efficiently. Here is an example:

$$\begin{array}{r} 1,852 \\ + 688 \\ \hline \end{array}$$

Breaking the Numbers Apart

Cheyenne solved this problem by adding one number in parts.

Cheyenne's solution

$$1,852 + 688 =$$

$$1,852 + 600 = 2,452$$

$$2,452 + 80 = 2,532$$

$$2,532 + 8 = \mathbf{2,540}$$

Richard and Jill solved the problem by adding by place. Their solutions are similar, but they recorded their work differently.

Richard's solution

$$1,800 + 600 = 2,400$$

$$50 + 80 = 130$$

$$2 + 8 = 10$$

$$\mathbf{2,540}$$

Jill's solution

$$1,852$$

$$+ 688$$

$$\hline 1,000$$

$$1,400$$

$$130$$

$$+ 10$$

$$\hline \mathbf{2,540}$$

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$$\begin{array}{r} 1,852 \\ + 688 \\ \hline \end{array}$$

Changing the Numbers

Emaan solved the problem by changing one number and adjusting the sum. He changed 688 to 700 to make an easier problem to solve.

Emaan's solution

$$\begin{array}{r} 1,852 \\ + 700 \\ \hline 2,552 \\ - 12 \\ \hline \mathbf{2,540} \end{array}$$

I added 700 instead of 688.

Then I subtracted the extra 12.

Venetta solved this problem by creating an equivalent problem.

Venetta's solution

$$1,852 + 688 =$$

$(-12) \quad (+12) \quad \text{I added 12 to 688 and subtracted 12 from 1,852.}$

$$1,840 + 700 = \mathbf{2,540}$$



Show how you would solve the problem $1,852 + 688$.