

Subtraction Across Zeros

You can use place-value charts to subtract across zeros.

Estimate. Then find the difference:

$$\begin{array}{r} 5,004 \\ - 1,286 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Estimate : } 5,004 \rightarrow 5,000 \\ - 1,286 \rightarrow - 1,300 \\ \hline 3,700 \end{array}$$

STEP 1 In the ones column, $6 > 4$. Begin regrouping with the thousands.

	Thousands	Hundreds	Tens	Ones
	4	10		
	5 ,	0	0	4
-	1,	2	8	6

STEP 2 Regroup the hundreds

	Thousands	Hundreds	Tens	Ones
	4	⁰ 10	10	
	5 ,	0	0	4
-	1,	2	8	6

STEP 3 Regroup the tens

Thousands	Hundreds	Tens	Ones
4	⁹ 10	⁹ 10	14
5,	0	0	4
- 1,	2	8	6

STEP 4 Subtract

Thousands	Hundreds	Tens	Ones
4	⁹ 10	⁹ 10	14
5,	0	0	4
- 1,	2	8	6
3,	7	1	8

Since the estimated difference, 3,700, is close to the actual answer, 3,718, the answer is reasonable.

Find the difference. $1790 - 1218 =$ _____

$$\begin{array}{r}
 \overset{8}{1}, \overset{10}{7} \cancel{9} \cancel{0} \\
 - 1,218 \\
 \hline
 572
 \end{array}$$

You need to regroup to subtract the ones

Examples:

A- Estimate. Then find each difference.

1)

$$\begin{array}{r} 506 \\ - 457 \\ \hline 49 \end{array}$$

$$\begin{array}{r} 500 \\ - 500 \\ \hline 000 \end{array}$$

2)

$$\begin{array}{r} 3,070 \\ - 1,832 \\ \hline 1,238 \end{array}$$

$$\begin{array}{r} 3,000 \\ - 2,000 \\ \hline 1,000 \end{array}$$

3)

$$\begin{array}{r} 5,004 \\ - 1,286 \\ \hline 3,718 \end{array}$$

$$\begin{array}{r} 5,000 \\ - 1,000 \\ \hline 4,000 \end{array}$$

4)

$$\begin{array}{r} 8,000 \\ - 2,480 \\ \hline 5,520 \end{array}$$

$$\begin{array}{r} 8,000 \\ - 2,000 \\ \hline 6,000 \end{array}$$

B-Find the difference. Tell which method you used.

5)

$$\begin{array}{r} 748 \\ - 205 \\ \hline 543 \end{array}$$

6)

$$\begin{array}{r} 8,165 \\ - 4,823 \\ \hline 3,342 \end{array}$$

7)

$$\begin{array}{r} 9,120 \\ - 3,576 \\ \hline 5,544 \end{array}$$

8)

$$\begin{array}{r} 1,790 \\ - 1,218 \\ \hline 572 \end{array}$$

C- Problem Solving

9) Kim had 435 cards. He gave away 118 cards. How many cards does he have left?

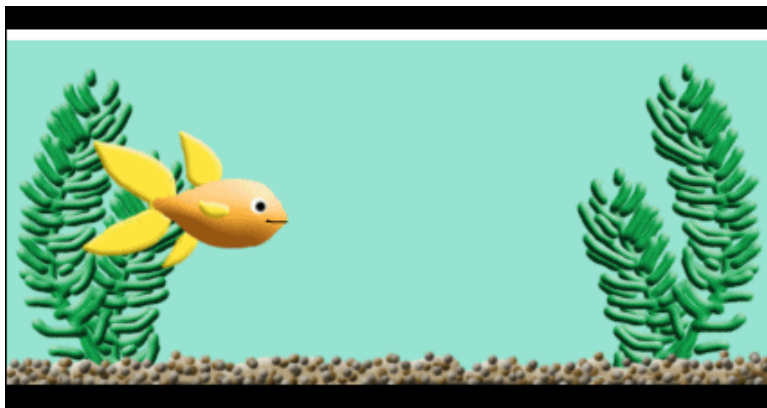
$$\underline{435 - 118 = 317 \text{ cards}}$$

10) Greta needs 700 tickets for a poster. She has 325 tickets. How many more tickets does Greta need?

$$\underline{700 - 325 = 375 \text{ more tickets}}$$

My Real Life

There are 359 fish in a large fish tank at a zoo. 200 died. How many are left?



$$\underline{359 - 200 = 159 \text{ fish}}$$