

Name _____

MY Homework

Lesson 7

Subtract Across Zeros

Homework Helper



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Makenna won 3,000 tickets playing an arcade game. She used 1,872 tickets to buy a prize. How many tickets does she have left?

$3,000 - 1,872 = \square$ ← Find the unknown.

Estimate $3,000 - 1,900 = 1,100$

1 Regroup 1 thousand, 1 hundred, and 1 ten.

$$\begin{array}{r} \overset{9}{\cancel{0}} \overset{9}{\cancel{0}} \\ \overset{2}{\cancel{0}} \overset{10}{\cancel{0}} \overset{10}{\cancel{0}} \\ 3, \overset{0}{\cancel{0}} \overset{0}{\cancel{0}} \overset{0}{\cancel{0}} \\ - 1,872 \\ \hline \end{array}$$

2 Subtract, starting at the place farthest to the right.

$$\begin{array}{r} \overset{9}{\cancel{0}} \overset{9}{\cancel{0}} \\ \overset{2}{\cancel{0}} \overset{10}{\cancel{0}} \overset{10}{\cancel{0}} \\ 3, \overset{0}{\cancel{0}} \overset{0}{\cancel{0}} \overset{0}{\cancel{0}} \\ - 1,872 \\ \hline 1,128 \end{array}$$

Check

$$\begin{array}{r} 1,128 \\ + 1,872 \\ \hline 3,000 \end{array}$$

Addition shows the answer is correct.

1,128 is close to the estimate of 1,100. Estimation shows the answer is reasonable.

Practice

Subtract. Use addition to check.

1.
$$\begin{array}{r} \overset{4}{\cancel{4}} \overset{10}{\cancel{10}} \\ \overset{0}{\cancel{0}} \overset{7}{\cancel{7}} \\ - \overset{9}{\cancel{9}} \overset{4}{\cancel{4}} \\ \hline \end{array}$$

$$\overset{4}{\cancel{4}} \overset{1}{\cancel{1}} \overset{3}{\cancel{3}}$$

Check:

$$\begin{array}{r|l|l} 1 & & \\ \hline 4 & 1 & 3 \\ + & 9 & 4 \\ \hline 5 & 0 & 7 \end{array}$$

2.
$$\begin{array}{r} \overset{9}{\cancel{9}} \\ \overset{10}{\cancel{10}} \overset{14}{\cancel{14}} \\ \overset{8}{\cancel{8}} \overset{0}{\cancel{0}} \overset{4}{\cancel{4}} \\ - \overset{6}{\cancel{6}} \overset{6}{\cancel{6}} \overset{7}{\cancel{7}} \\ \hline \end{array}$$

$$\overset{1}{\cancel{1}} \overset{3}{\cancel{3}} \overset{7}{\cancel{7}}$$

Check:

$$\begin{array}{r|l|l} 1 & 1 & \\ \hline 1 & 3 & 7 \\ + & 6 & 6 & 7 \\ \hline 8 & 0 & 4 \end{array}$$

3.
$$\begin{array}{r} \overset{9}{\cancel{9}} \overset{9}{\cancel{9}} \\ \overset{10}{\cancel{10}} \overset{10}{\cancel{10}} \overset{10}{\cancel{10}} \\ \overset{4}{\cancel{4}} \overset{0}{\cancel{0}} \overset{0}{\cancel{0}} \overset{0}{\cancel{0}} \\ - \overset{9}{\cancel{9}} \overset{6}{\cancel{6}} \overset{9}{\cancel{9}} \\ \hline \end{array}$$

$$\overset{3,}{\cancel{3,}} \overset{0}{\cancel{0}} \overset{3}{\cancel{3}} \overset{1}{\cancel{1}}$$

Check:

$$\begin{array}{r|l|l|l} 1 & 1 & 1 & \\ \hline 3, & 0 & 3 & 1 \\ + & 9 & 6 & 9 \\ \hline 4, & 0 & 0 & 0 \end{array}$$

Subtract. Use addition to check your answer.

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 6 & \overset{9}{\cancel{10}} & \overset{10}{\cancel{0}} & \\ \hline \cancel{7} & \cancel{0} & \cancel{0} & 5 \\ \hline - & 9 & 4 & 1 \\ \hline 6, & 0 & 6 & 4 \\ \hline \end{array} \end{array}$$

Check:

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 1 & 1 & & \\ \hline 6, & 0 & 6 & 4 \\ \hline + & 9 & 4 & 1 \\ \hline 7, & 0 & 0 & 5 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 3 & \overset{9}{\cancel{10}} & \overset{10}{\cancel{0}} \\ \hline \cancel{4} & \cancel{0} & \cancel{0} \\ \hline - & 1 & 5 & 3 \\ \hline 2 & 4 & 7 \\ \hline \end{array} \end{array}$$

Check:

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 1 & 1 & \\ \hline 2 & 4 & 7 \\ \hline + & 1 & 5 & 3 \\ \hline 4 & 0 & 0 \\ \hline \end{array} \end{array}$$

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 2 & \overset{9}{\cancel{10}} & \overset{9}{\cancel{10}} & \overset{10}{\cancel{0}} \\ \hline \cancel{3} & \cancel{0} & \cancel{0} & \cancel{0} \\ \hline - & 1, & 2 & 0 & 2 \\ \hline 1, & 7 & 9 & 8 \\ \hline \end{array} \end{array}$$

Check:

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 1 & 1 & 1 & \\ \hline 1, & 7 & 9 & 8 \\ \hline + & 1, & 2 & 0 & 2 \\ \hline 3, & 0 & 0 & 0 \\ \hline \end{array} \end{array}$$

Algebra Subtract to find the unknown.

7. $\$3,008 - \$1,053 = \blacksquare$

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 2 & \overset{9}{\cancel{10}} & \overset{10}{\cancel{0}} & \\ \hline \$ \cancel{3} & \cancel{0} & \cancel{0} & 8 \\ \hline - \$ 1, & 0 & 5 & 3 \\ \hline \$ 1, & 9 & 5 & 5 \\ \hline \end{array} \end{array}$$

$\blacksquare = \underline{\$1,955}$

8. $8,200 - 875 = \blacksquare$

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 7 & \overset{11}{\cancel{1}} & \overset{9}{\cancel{10}} & \overset{10}{\cancel{0}} \\ \hline \cancel{8} & \cancel{2} & \cancel{0} & \cancel{0} \\ \hline - & 8 & 7 & 5 \\ \hline 7, & 3 & 2 & 5 \\ \hline \end{array} \end{array}$$

$\blacksquare = \underline{7,325}$

9. $9,001 - 3,860 = \blacksquare$

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 8 & \overset{9}{\cancel{10}} & \overset{10}{\cancel{0}} & \\ \hline \cancel{9} & \cancel{0} & \cancel{0} & 1 \\ \hline - 3, & 8 & 6 & 0 \\ \hline 5, & 1 & 4 & 1 \\ \hline \end{array} \end{array}$$

$\blacksquare = \underline{5,141}$



Problem Solving

Mathematical PRACTICE



2 Understand Symbols Write a number sentence.

10. A bag holds 5,300 seeds. Brandon plants 790 of the seeds. How many seeds are left?

4,510 seeds; $5,300 - 790 = 4,510$

11. Amy's book has 500 pages. She has read 245 pages so far. How many pages does Amy have left to read?

255 more pages; $500 - 245 = 255$

Test Practice

12. How many more points did Jocelyn score?

- (A) 64 points (C) 164 points
(B) 74 points (D) 174 points

