

Topic 2 Study Guide

Students will be able to:

- Estimate the sum and difference of whole numbers when given a specific place value.

- **Examples:** Round to the nearest ten-thousand

$$\begin{array}{r}
 738,775 \text{ ---- } 740,000 \\
 + 272,044 \text{ + } 270,000 \\
 \hline
 1,100,000
 \end{array}
 \qquad
 \begin{array}{r}
 55,487 \text{ ---- } 60,000 \\
 - 31,628 \text{ - } 30,000 \\
 \hline
 30,000
 \end{array}$$

- Add whole numbers

- **Example:**

$$\begin{array}{r}
 1 \\
 58 \\
 + 67 \\
 \hline
 125
 \end{array}
 \qquad
 \begin{array}{r}
 11 \\
 546 \\
 + 86 \\
 \hline
 632
 \end{array}$$

8+7=15 so you need to carry the 1

need to carry twice in this problem

- Subtract whole numbers

- **Example:**

$$\begin{array}{r}
 412 \\
 532 \\
 - 154 \\
 \hline
 378
 \end{array}$$

This 4 is left over after the 5 was borrowed from

The 2 that was left over from borrowing the first time becomes a 12 when it borrows from the 5 'next door'

- Subtract whole numbers across zeros

You can do the box trick if...

You **cannot** subtract the ones place

There is a zero in the tens place

If you can do the box trick, follow these steps:

1. Put a box around the tens and hundreds.

$$\begin{array}{r}
 \boxed{50}0 \\
 - 256 \\
 \hline
 \end{array}$$

2. Cross it off

$$\begin{array}{r}
 \boxed{50}0 \\
 - 256 \\
 \hline
 \end{array}$$

3. Make it one less

$$\begin{array}{r}
 10 \\
 49\cancel{0} \\
 - 256 \\
 \hline
 \end{array}$$