Name: _____ Period: _____ Date: _____

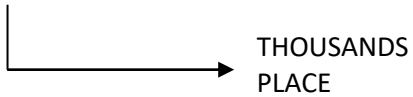
Rounding and Estimating Guide Notes

ROUNDING OF AND ESTIMATION OF THE WHOLE NUMBERS

Example 1:

Round off 425 201 to the nearest thousand.

42<u>5</u> 201



425 000

RULES IN ROUNDING OFF WHOLE NUMBERS

1. If the first digit immediately to the right of the round-off place is
   a. Less than 5, the digit in the round-off place is retained.
   b. 5 or more, the digit in the round off-place is increased by 1.
2. Digits to the left of the round-off place are retained.
3. Digits to the right of the round-off place are replaced by zeros.

Sample Problem 1:

Round-off 421 281 to the nearest hundred.

Sample Problem 2:

Find the sum of 492, 512, 90, and 301.

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Rounding and Estimating Guide Notes

Estimation

The process of approximating the answer so that an unreasonable answer caused by careless mistakes can be recognized is called *estimation*.

Sample Problem 3:

Estimate 921 - 512 then determine the exact answer.

Sample Problem 4:

Choose the best pair of compatible numbers for 255 ÷ 50.

a. 260 ÷ 50 b. 260 ÷ 60 c.250 ÷ 50

Sample Problem 5:

Estimate 272 ÷ 4.

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Rounding and Estimating Guide Notes

Front-End Estimation

1. **Add (or Subtract) the first to get a rough estimate.**
2. **Adjust your estimate by using the remaining digits and looking for numbers that are compatible.**

Example 2:

Use front-end estimation to estimate the value of the variable.

3 527 + 7 969 + 5 493 =N

Add the front-end digits

3 527 + 7 969 + 5 493 is about 15 thousand.

Rough estimate: 15 000

Look at the other digits, 3 527 + 7 969 + 5 493, for compatible numbers: 1500

969 is about 1 000. Increase the estimate by 2 000.

Adjusted estimate: 17 000