ROUNDING

Rules

STEP 1: **Underline** digit at the place value you are asked to round.

STEP 2: Look at the digit to the **immediate right** of underlined digit.

a) If digit to the right is **4 or less (0-4), keep** underlined digit the same.

b) If digit to the right is **5 or more (5-9), add 1** to **underlined** digit.

STEP 3: All digits to the **left** of underlined digit remain the **same.**

a) Exception occurs when underlined digit is 9. In this case, if digit to the right is 5 or more (5-9), we round up and have 9 + 1 = 10, which means a +1 carry will be involved. Thus, one (or more) digits to the left of underlined digit **will** change.

STEP 4: All digits to the **right** of underlined digit convert to **zero.**

Example 1: Round 274 to the nearest ten.

STEP 1: **Underline** digit at the place value you are asked to round.

2**7**4

STEP 2: Look at the digit to the **immediate right** of underlined digit.

2**7**4 Since digit to the right is **4** which is **4 or less (0-4), keep** underlined digit the same.

STEP 3: All digits to the **left** of underlined digit remain the **same.**

2**7**4

STEP 4: All digits to the **right** of underlined digit convert to **zero.**

270 Answer. The number was **rounded down** because 270 is less than 274.

Example 2: Round 1683 to the nearest hundred.

STEP 1: **Underline** digit at the place value you are asked to round.

1**6**83

STEP 2: Look at the digit to the **immediate right** of underlined digit.

1**6**83 Since digit to the right is **8** which is **5 or more (5-9), add 1** to **underlined** digit. The underlined 6 becomes **7.**

STEP 3: All digits to the **left** of underlined digit remain the **same.**

1**7**83

STEP 4: All digits to the **right** of underlined digit convert to **zero.**

1700 Answer. The number was **rounded up** because 1700 is more than 1683.

Example 3: Round 21,087 to the nearest thousand.

STEP 1: **Underline** digit at the place value you are asked to round.

2**1**,087

STEP 2: Look at the digit to the **immediate right** of underlined digit.

2**1**,**0**87 Since digit to the right is **0** which is **4 or less (0-4), keep** underlined digit the same.

STEP 3: All digits to the **left** of underlined digit remain the **same.**

2**1**,**0**87

STEP 4: All digits to the **right** of underlined digit convert to **zero.**

21,000 Answer. The number was **rounded down** because 21,000 is less than 21,087.

Example 4: Round 546,734 to the nearest ten thousand.

STEP 1: **Underline** digit at the place value you are asked to round.

5**4**6,734

STEP 2: Look at the digit to the **immediate right** of underlined digit.

5**5****6**,734 Since digit to the right is **6** which is **5 or more (5-9), add 1** to **underlined** digit.
The underlined 4 becomes **5.**

STEP 3: All digits to the **left** of underlined digit remain the **same.**

5**5****6**,734

STEP 4: All digits to the **right** of underlined digit convert to **zero.**

550,000 Answer. The number was **rounded up** because 550,000 is more than 546,734.

Example 5: Round 439,510 to the nearest thousand.

STEP 1: **Underline** digit at the place value you are asked to round.

43**9**,510

STEP 2: Look at the digit to the **immediate right** of underlined digit.

43**9**,**5**10 Since digit to the right is **5** which is **5 or more (5-9), add 1** to **underlined** digit.
The underlined 9 looks like it should become a **10.**
However, we cannot have two digits residing in one place value.

STEP 3: In this example, **not all** digits to the **left** of underlined digit remain the same. Two digits change.

+1

43**0**,**5**10 The 9 is rounded up and is replaced with **0**. See left.
A **+1** gets carried over to the top of the 3, like in addition.

4**4****0**,**5**10 Add the **+1** carry to the 3 to obtain **4**. See left.

STEP 4: All digits to the **right** of underlined digit convert to **zero.**

440,000 Answer. The number was **rounded up** because 440,000 is more than 439,510.