# Beta

## Lesson 11 Rounding To Hundreds

- (1) Beta Instruction Manual, Lesson 11
- (2) Beta Student Text, Lesson 11
- (3) Beta Test Booklet, Test 11
- (4) Beta Instruction Manual, Lesson 11 Solutions

Beta builds on the foundation in Alpha by applying students' mastery of single-digit addition and subtraction to multiple-digit addition and subtraction. One of the stepping stones between these two levels is the concept of place value, which is an important milestone for truly grasping any multiple-digit operation.

These Beta Sample Pages will give you an idea of Math-U-See's unique method of instruction. However, the cornerstone of Math-U-See's success in teaching Multiple-Digit Addition & Subtraction and other topics is our multi-sensory approach to maths instruction. Integrated Manipulative Blocks and Lesson-by-Lesson DVDs are used in every lesson throughout the Beta Level to incorporate kinaesthetic, visual and auditory learning.

If you believe that Beta is the level for your student to begin, please confirm this by completing our free online placement tests.

To Your Success!!





## Rounding to Hundreds

Multiple-Digit Addition with Regrouping

As we have been doing and always will do, add the units first. There may come a time when a student is so proficient at adding multiple digit numbers that he will add from the left, but this is down the road and not the way the decimal system operates. At this juncture, always add from right to left, from smaller to larger. Remember that you add units to units, tens to tens, and hundreds to hundreds. Whenever you add two numbers, always add the same values. "To combine, you must be the same kind." Here are two examples followed by the same problems worked out with place value notation and regular notation. If you have lined paper I suggest you turn it sideways to help keep the values in the proper places.

## Rounding and Estimating to Hundreds

When adding large numbers, encourage the student to estimate the answer before solving it. We have learned how to round and estimate to the tens place, and now we want to increase our understanding by rounding and estimating to the hundreds place.

When you round a number to the nearest multiple of 100, there will be a number in the hundreds place but only a zero in the tens and units places, which are to the right of the hundreds place. It doesn't matter what numbers are present in the other place values, only the number to the immediate right of the place value being considered—in this case the tens place. This number determines whether to stay the same or be increased by one. I tell the students this is why we call it rounding, because the tens and units are going to be a "round" zero.

#### Example 1

Round 383 to the nearest hundreds place.

The first step is to find the two multiples of a hundred that are nearest to 383. The lower one is 300 and the higher one is 400; 383 is between 300 and 400. If the student has trouble finding these numbers, begin by placing your finger over the 83, so that all you have is a 3 in the hundreds place, which is 300. Then add one more to the hundreds to find the 400. I often write the numbers 300 and 400 above the number 383 on both sides as in figure 1.

Look at the number in the tens place. Does it fall in 0 through 4 or in 5 through 9? Since it is an 8, it is in the latter group, which means we round up to the next number, 400. Rounded to the nearest hundred, 383 is 400.

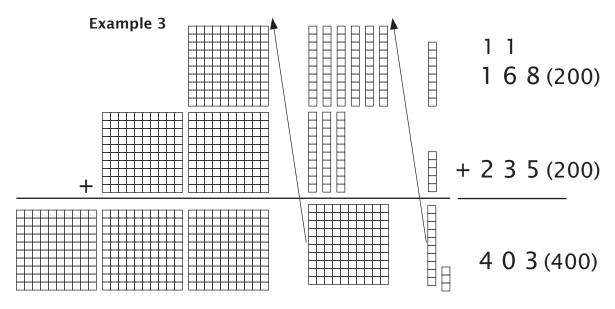
## Example 2

Round 547 to the nearest hundreds place.

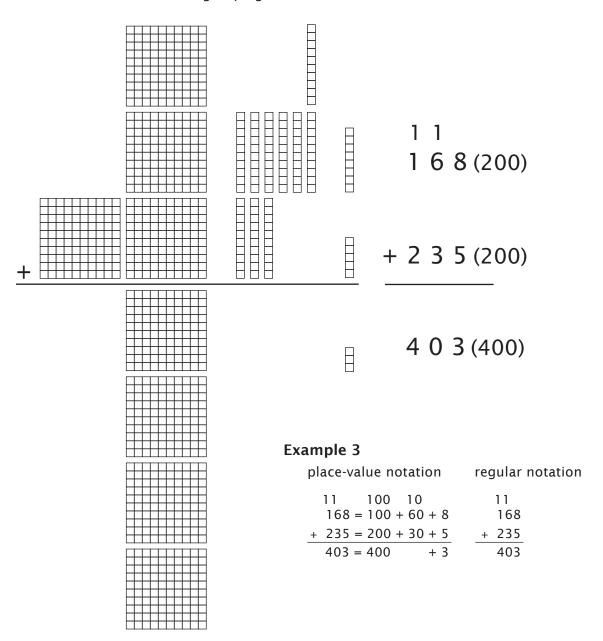
500 547 600 1. Find the multiples of one hundred nearest to 547.

500 547 600 2. We know that 4 goes to the lower number, 500.

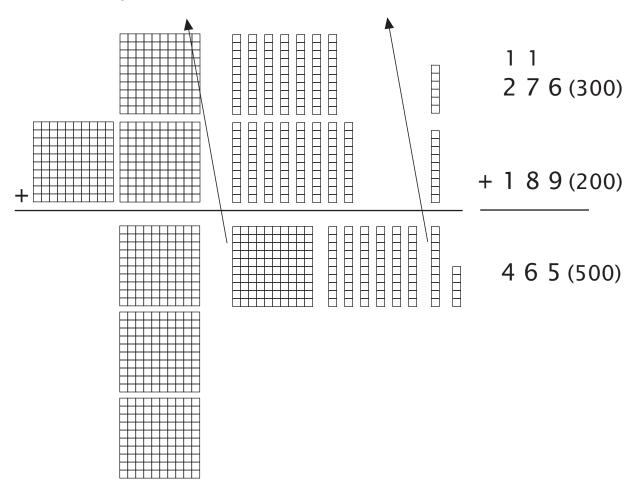
In examples 3 and 4, the estimates are to the right in parentheses.

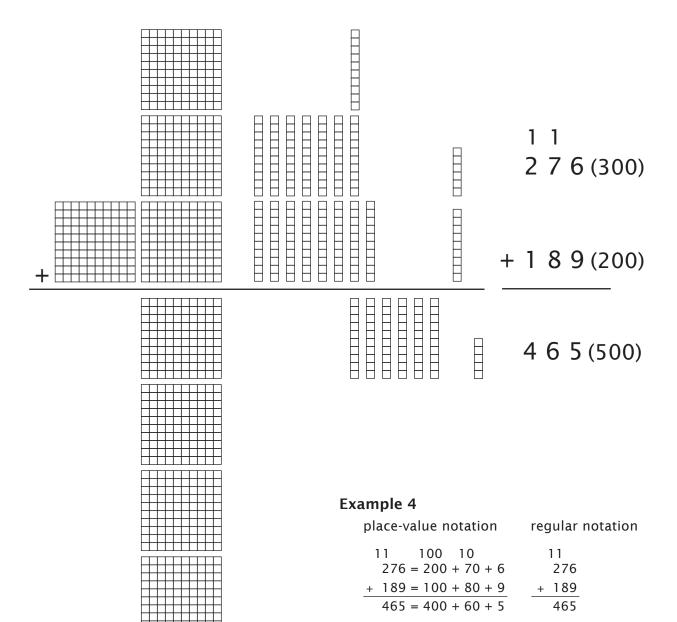


**Example 3** (continued) Five units plus 8 units equals 13, which is 1 ten and 3 units. We move the ten (or carry it) to the tens place as indicated by the arrow. Then 6 tens plus 3 tens plus the 1 ten from the result of adding in the units place equals 1 hundred. The 1 hundred is moved to the hundreds place as shown by the second arrow. Adding all the hundreds gives us the answer of 4 hundreds, 0 tens, and 3 units or 403. The picture below shows the result after regrouping.



## Example 4





## LESSON PRACTICE

Round to the nearest hundreds place.

Round to the nearest hundred and estimate the answer. Then find the exact answer. The first one is done for you.

6. 
$$359$$
 ( ) 7.  $537$  ( )  $+254$  + ( )  $+233$  + ( )

7. 
$$537$$
 ( )  $+233$   $+$  ( )

LESSON PRACTICE 11A

12. First, 124 lights burned out on the big Christmas tree downtown. Then 176 more lights burned out. How many lights need to be replaced?

126 BETA

## LESSON PRACTICE

Round to the nearest hundreds place.

Round to the nearest hundred and estimate the answer. Then find the exact answer.

6. 
$$157$$
 ( ) 7.  $227$  ( )  $+142$  + ( )  $+39$  + ( )

9. 
$$235$$
 ( )  $+145$   $+$  ( )

LESSON PRACTICE 11B

12. On Monday Steve read 123 pages of his book. On Tuesday he read 169 pages. How many pages has he read in all?

128

## LESSON PRACTICE

Round to the nearest hundreds place.

Round to the nearest hundred and estimate the answer. Then find the exact answer.

7. 
$$119$$
 ( )  $+207$   $+$  ( )

LESSON PRACTICE 11C

12. On our trip to Grandma's house, Dad drove 263 kilometres and Mom drove 179 kilometres. How far is it to Grandma's

house?

130 BETA

## SYSTEMATIC REVIEW

Round to the nearest hundreds place.

Add. Regroup if needed.

Review subtraction facts. These problems review subtracting 0, 1, and 2.

#### SYSTEMATIC REVIEW 11D

Skip count by two and write the numbers.

18. Andrew has five dollars and twenty-six cents. Write that amount with a decimal point and dollar sign.

\_\_\_\_\_

19. We traveled 55 kilometres last week and 78 kilometres this week. How many kilometres did we travel those two weeks?

\_\_\_\_\_

20. Jim had \$145 in his savings. He got \$56 for his birthday. How much money does Jim have now?

\_\_\_\_\_

## SYSTEMATIC REVIEW

11E

Round to the nearest hundreds place.

Add. Regroup if needed.

Review subtraction facts. These problems review subtracting 0, 1, and 2.

#### SYSTEMATIC REVIEW 11E

Skip count by five and write the numbers.

- 18. A tree grew 17 centimetres one year and 9 centimetres the next year. How much did it grow during those two years?
- 19. Captain Cook spotted 138 penguins in the water and 256 on the shore. How many penguins were spotted by Captain Cook?
- 20. Mom has five eggs. Two of the eggs are cracked. How many are not cracked? (Watch for word problems that review subtraction.)

\_\_\_\_\_

## SYSTEMATIC REVIEW

11F

Round to the nearest hundreds place.

Add. Regroup if needed.

Review subtraction facts. These problems review subtracting by 2 and difference of 2.

SYSTEMATIC REVIEW 11F

Skip count by ten and write the numbers.

- 18. Deb has 21 red sweets and 48 green sweets. Round to the nearest 10 and estimate how many sweets she has.
- 19. Pete drove 512 kilometres one day and 345 the next day. How far did he drive? Estimate first, and then solve.
- 20. Drew lost eight dollars. If he finds six dollars, how many dollars are still lost? Write your answer with a decimal point and dollar sign.

\_\_\_\_\_

TEST 11

Skip count by five and write the numbers.

- 19. Cameron had 476 stamps in his collection at the beginning of the year. Since then he has collected 125 more. How many stamps does he have now? Estimate first, and then solve.
  - \_\_\_\_
- 20. Sara is six years old. How many years is it until she is ten?

#### SYSTEMATIC REVIEW10E - LESSON PRACTICE 11A

14. 
$$5+2=7$$
  
 $7+2=9$  roses

## Systematic Review10F

- 1. \$1.08
  - "one dollar and eight cents"
- 2. 1 dollar, 1 dime, and 6 pennies "one dollar and sixteen cents"
- 3. 3 dollars and 9 pennies
  - "three dollars and nine cents"
- 4. 2 dollars, 6 dimes, and 5 pennies "two dollars and sixty-five cents"
- 5. 4 dollars and 7 dimes "four dollars and seventy cents"
- 6. 5, 10, <u>15</u>¢

8. 
$$337$$
 $+202$ 
 $539$ 

14. 
$$3+4=7$$

$$7 + 8 = 15$$
 miles

15. 
$$29 + 18 = 47$$
 miles

## Lesson Practice 11A

- 1. 200
- 2. 200
- 3. 400
- 4. done

5. 
$$(600)$$
  $628$   $+(200)$   $+175$   $803$ 

6. 
$$(400)$$
 359  $+(300)$   $+254$   $(700)$  613

7. 
$$(500)$$
  $537$   $+(200)$   $+233$   $770$ 

8. 
$$(200)$$
 168  $+(500)$   $+452$   $(700)$  620

9. 
$$(100)$$
 123  $+ (100)$   $+ 88$   $(200)$  211

10. 
$$(700)$$
 676  $\frac{+(100)}{(800)}$   $\frac{+145}{821}$ 

11. 
$$(300)$$
 299  $\frac{+(300)}{(600)}$   $\frac{+311}{610}$ 

12. 124 + 176 = 300 lights

#### LESSON PRACTICE 11B - SYSTEMATIC REVIEW 11D

## Lesson Practice 11B

- 1. 500
- 2. 500
- 3. 600
- 5. (100) 138 +(200) +212 (300) 350
- 6. (200) 157  $\frac{+(100)}{(300)}$   $\frac{+142}{299}$
- 7. (200) 227 +(000) + 39 266
- 8. (400) 449 +(100) +137 (500) 586
- 9. (200) 235 +(100) +145 (300) 380
- 10. (100) 109 +(200) +207 (300) 316
- 11. (400) 416 +(300) +329 745
- 12. 123+169 = 292 pages

## **Lesson Practice 11C**

- 1. 500
- 2. 100
- 3. 300

4. 
$$(200)$$
 217  $+(300)$   $+324$   $(500)$  541

- 5. (300) 266  $\frac{+(000)}{(300)}$   $\frac{+18}{284}$
- 6. (100) 134 +(400) +365(500) 499
- 7. (100) 119 +(200) +207 (300) 326
- 8. (600) 555 +(300) +348(900) 903
- 9. (800) 806  $\frac{+(100)}{(900)} \frac{+106}{912}$
- 10. (100) 119 +(200) +217 (300) 336
- 11. (200) 248 +(300) +252 (500) 500
- 12. 263+179=442 km

## Systematic Review 11D

- 1. 800
- 2. 100
- 1 3. 806 + 106 9 12

- 5. 337 + 172 509
- 6. 54 +28 82
- 7.  $\begin{array}{r} 1 \\ 53 \\ +37 \\ \hline 90 \end{array}$
- $\begin{array}{r}
   1 \\
   8. \quad 18 \\
   \underline{+29} \\
   47
  \end{array}$
- 9. 1-1=0
- 10. 10-2=8
- 11. 8-1=7
- 12. 3-0=3
- 13. 4-3=1
- 14. 6-2=4
- 15. 5-4=1
- 16. 8-2=6
- 17. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
- 18. \$5.25
- 19. 55 + 78 = 133 km
- 20. \$145 + \$56 = \$201

## Systematic Review 11E

- 1. 400
- 2. 200
- $\begin{array}{r}
  11 \\
  235 \\
  +365 \\
  \hline
  600
  \end{array}$
- $\begin{array}{r}
  4. & 300 \\
   & +409 \\
   \hline
   & 709
  \end{array}$
- 5. 249 + 132 38 1
- $\begin{array}{r}
   1 \\
   6. \quad 28 \\
   \underline{+38} \\
   \hline
   66
  \end{array}$
- 7.  $\begin{array}{r} 1 \\ 65 \\ +35 \\ \hline 100 \end{array}$

- 8.  $\begin{array}{r} 1 \\ 58 \\ \underline{+42} \\ 100 \end{array}$
- 9. 4-2=2
- 10. 7-2=5
- 11. 3-1=2
- 12. 11-2=9
- 13. 6-5=1
- 14. 8-0=8
- 15. 10-9=1
- 16. 9-2=7
- 17. 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
- 18. 17+9=26 cm
- 19. 138 + 256 = 394 penguins
- 20. 5-2=3 eggs

## Systematic Review 11F

- 1. 500
- 2. 700
- $\begin{array}{r}
  1 \\
  429 \\
  +266 \\
  \hline
  695
  \end{array}$
- 4. 10 1 + 89 190
- 5.  $\begin{array}{r} 1 \\ 238 \\ +243 \\ \hline 481 \end{array}$
- 1 6. 92 + 8 100
- 7.  $\begin{array}{r} 1 \\ 48 \\ +32 \\ \hline 80 \end{array}$
- 8. 63 +27 90
- 9. 5-3=2
- 10. 10-2=8
- 11. 7-5=2
- 12. 6-2=4
- 13. 9-7=2
- 14. 8-2=6

#### SYSTEMATIC REVIEW 11F - LESSON PRACTICE 12C

15. 
$$10-8=2$$

16. 
$$11-9=2$$

18. 
$$(20) + (50) = (70)$$
 sweets

19. 
$$(500) + (300) = (800)$$
  
 $512 + 345 = 857 \text{ km}$ 

20. 
$$8-6=2$$
 dollars = \$2.00

## **Lesson Practice 12A**

- 1. done
- $\begin{array}{r}
  11 \\
  2. & $7.05 \\
   & +1.95 \\
  \hline
  $9.00
  \end{array}$
- 3. \$3.30 +1.45 \$4.75
- $\begin{array}{r}
  1 \\
  4. & $6.50 \\
   & +2.75 \\
  \hline
   & $9.25
  \end{array}$
- 5. \$4.00 +2.50 \$6.50
- 1 6. \$5.15 +1.35 \$6.50
- 7. \$1.00 + .75 \$1.75
- 8. \$2.00 +1.90 \$3.90
- 9. \$8.75 + .80 \$9.55
- 10. \$5.25 + \$3.35 = \$8.60
- 11. \$2.65 + \$5.50 = \$8.15
- 12. \$2.95 + \$3.65 = \$6.60

## **Lesson Practice 12B**

- 1. \$7.65 + .60 \$8.25
- 2. \$6.35 +1.25 \$7.60
- 1 3. \$5.80 + .25 \$6.05
- 1 4. \$3.15 + .90 \$4.05
- 5. \$2.00 + .95 \$2.95
- 6. \$1.00 +1.25 \$2.25
- 7. \$3.75 +4.05 \$7.80
- 8. \$1.95 +1.85 \$3.80
- 11 9. \$2.85 +6.85 \$9.70
- 10. \$3.45 + \$2.00 = \$5.45
- 11. \$5.55 + \$2.15 = \$7.70
- 12. \$6.35 + \$2.95 = \$9.30

#### Lesson Practice 12C

- 1 1. \$2.10 +1.95 \$4.05
- 1 2. \$4.75 +1.30 \$6.05
- 1 3. \$6.45 + .35 \$6.80