Third Grade
First Nine Week
Math Study Guide

3.OA.8-Solve **two-step word problems** using the four operations. Represent these problems using **equations** with a letter standing for the **unknown quantity**. Assess the **reasonableness** of answers using **mental computation** and estimation strategies including **rounding.**

Examples:

What is the value of x in the equation?
$834 - x = 667$

A. 167   B. 267   C. 1,501   D. 1,000   (Answer: A)

The chart shows how many students were in school each day.

Students in School

Monday	763
Tuesday	837
Wednesday	468
Thursday	764
Friday	634

How many fewer students were in school on Wednesday than on Friday?

A. 1   B. 296   C. 166   D. 369   (Answer C)

Look at the chart.

AR Points

Name	Points
Frank	436
Bettina	678
Juan	387

Which of the following is true about the AR points?

A. Bettina scored 242 AR points less than Frank.
B. Juan scored 191 AR points less than Bettina.
C. The sum of all the AR points is 1,501.
D. Juan scored the most AR points.

(Answer: C)

Sam read 864 pages in his book in two days. He read 452 pages on the first day. How many pages did he read the second day?

A. 1,316   B. 412   C.312   D. 534   (Answer: B)

Which expression can be used to check the sum of 67 + 35?

A. 102 + 77   B. 102 - 35   C. 67 - 35   D. 35 – 67   (Answer: B)

What is the value of m in the equation?
$$357 + m = 834$$

A. 377   B. 577   C. 985   D. 477   (Answer: D)

What is the value of g in the number sentence?

$$45 = 78 – g$$

A. 33   B. 123   C. 45   D. 80   (Answer: A)

Allison has 52 stuffed animals. Her mother gave her 67 more stuffed animals.
Which fact can Allison use to find out how many stuffed animals she has in all?

A. 67+ 52 = 119   B. 52 + 15 = 67   C. 67 + 10 = 77   D. 67 - 52 = 15   (Answer: A)

Mike has two pets. His dog weighs 197 pounds. His cat weighs 58 pounds.
How much does the dog and cat weigh together?

A. 250 pounds   B. 255 pounds   C. 141 pounds   139 pounds   (Answer: B)

There were a total of 947 people at the baseball field. There were 213 people at the first game. 679 people at the second game. The rest of the people were at the third game. How many people were at the third game?

A. 55   B. 1,839   C. 892   D. 734   (Answer: A)

Elena had 40 stickers. Her aunt gave her 6 more stickers. Elena then gave away half of the stickers her aunt gave to her. How could you find the number of tickets Elena now has?

A. 40 + 6 + 20 = 66   B. 40 + 6 – 6 = 40
C. 40 + 6 – 3= 43   D. 40 +6 = 46   (Answer: C)

3. OA.9- Identify **arithmetic patterns** (including **patterns** in the addition table or multiplication table) and explain them using **properties** of **operations**.

Examples:

Use the addition table to answer the questions.

ADDITION TABLE	1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9	10
2	3	4	5	6	7	8	9	10	11
3	4	5	6	7	8	9	10	11	12
4	5	6	7	8	9	10	11	12	13
5	6	7	8	9	10	11	12	13	14
6	7	8	9	10	11	12	13	14	15
7	8	9	10	11	12	13	14	15	16
8	9	10	11	12	13	14	15	16	17
9	10	11	12	13	14	15	16	17	18

Which statement is true?

A. The sum of two even numbers is always odd.
B. The sum of two odd numbers is always odd.
C. The sum of two odd numbers is always even.
D. The sum of an odd and even number is always even.   (Answer: C)

The sum of 8 + 3 is _____.

A. odd   B. even

C. Both odd and even   D. neither odd or even   (Answer: A)

Which property explains 8 + 5 = 5 + 8?

A. associative property of addition

B. commutative property of addition

C. property of one

D. property of zero   (Answer: B)

Which of these shows the associative property of addition?

A. 4 + (5 + 6) = (4 + 5) + 6   B. 5 + 3 = 3 + 5

C. 8 +0 = 0   D. 7 x 1 = 7
(Answer: A)

Study this pattern.

185, 187, 182, 184, 179, 181, _____

If the pattern continues, what number comes next?
A. 179   B. 176   C. 178   D. 181   (Answer: B)

3. NBT.1- Use **place value** understanding to **round** whole numbers to the nearest 10 or 100.

Examples:

Mike has 783 books in his comic book collection.
What is this number rounded to the nearest hundred?

A. 700   B. 800   C. 780   D. 790   (Answer: B)

Mary has $503. She received $85 more. Which equation shows a way to estimate the total amount of money Mary has?

A. 500 + 80 = 580   B. 500 + 90 = 590

C. 600 + 90 = 690   D. 400 + 90 = 490   (Answer: B)

When rounding to the nearest ten, which of the following numbers will not round to 80?

A. 87   B. 83   C. 78   D. 84   (Answer: A)

Marie collected about 700 bottle tops for her collection. Rounded to the nearest hundred, which choice could be the exact number of bottle tops Marie collected?

A. 754   B. 648   C. 687   D. 782   (Answer: C)

Round 368 to the nearest 10?

A. 370   B. 400   C. 300   D. 360   (Answer: A)

Four students are reading a book. The chart shows the number of pages each person has read.

Book Pages

Sally	573
Marc	665
Trina	528
Nick	439

Which student read about 500 pages?

A. Sally   B. Marc   C. Trina   D. Nick

(Answer: C)

3. NBT.2. Fluently add and subtract within 1000 using strategies and **algorithms** based on **place value**, properties of operations, and/or the relationship between **addition** and **subtraction**.

Examples:

Sam has 4,308 coins in his coin collection.
How would you write the number 4,308 in expanded form?

A. 400 + 30 + 8   B. 4,000 + 30 + 8

C. 400 + 300 + 8   D. 4,000 + 300 + 8   (Answer: D)

What is another way to write 6,832?

A. six hundred eight hundred thirty two
B. 600 + 800 + 30 + 2
C. six thousand eight hundred two
D. 6,000 + 800 + 30 + 2   (Answer: D)

```
    900            721              305 – 129 =
 -  378          + 189
                                   403 + 298 =
```

(Answers: 522 and 910)   (Answers: 176 and 701)

What is 100 more than 5, 683?

A. 5,783   B. 6,683   C. 5,583   C. 6,567

(Answer: A)

What number is 60 less than 873?

A. 933   B. 813   C. 973   D. 863   (Answer: B)

What is another way to write 79 + 25?

A. 70 + 20 + 90 + 50   B. 7 + 9 + 2 + 5
C. 70 + 20 + 9 + 5   D. 790 +250   (Answer: C)

Review Skills from Second Grade to build understanding of place value.

Look at the numbers:

5, 895
5,986
6,958
6,859

How would you order the numbers from least to greatest?
A.   5,895, 5,986; 6,958; 6,859
B.   5,986; 6,958; 6,859; 5,895
C.   5,895, 5,986; 6,859; 6,958
D.   6,958; 6,859; 5,895; 5,986   (Answer: C)

Which of the following statements is true?

A. 5, 890 < 5, 888   B. 5, 890 = 5,888   C. 5, 888 > 5, 890   D. 5, 888< 5, 890
(Answer: D)

Look at the chart. Who has the most stickers?

Mark	Gloria	John	Antonio
4,793	7,860	7,906	7,860

 A. Mary   B. Gloria

 C. John   D. Antonio   (Answer: C)