



3rd Grade American Math HW 3

Dear Family,
During the next few weeks, our math class will be learning about addition and subtraction strategies for numbers within 10,000. You can expect to see homework that provides practice with using expanded form and place-value strategies as well as solving two-step addition and subtraction problems.

Vocabulary

Expanded form: A way to write numbers by showing the value of each digit.

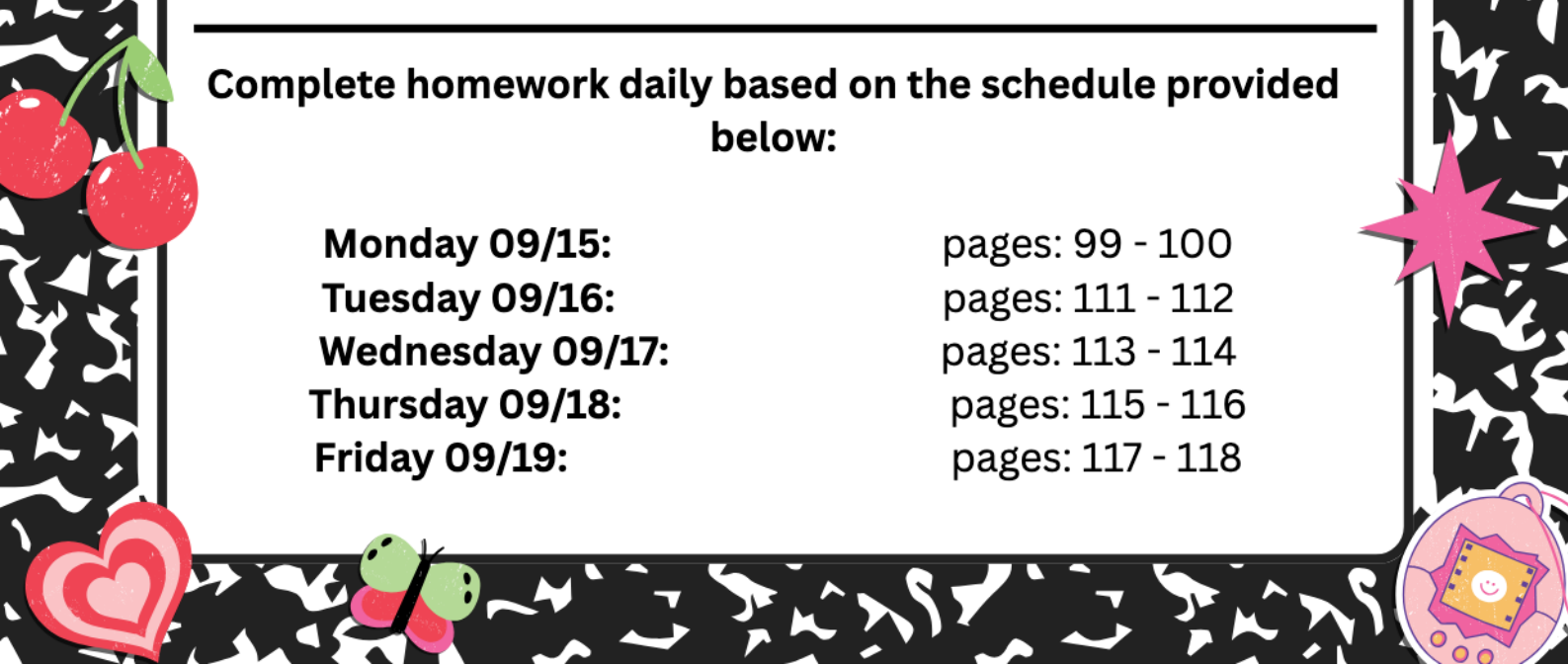
Regroup: To exchange amounts of equal value to rename a number.


$$3+3$$

- Homework due date: **Sunday, Sept. 21st** (Please upload HW on Archie)
- **Quiz on Thursday, Sept. 18th**
- Please find attached the first page with the definitions and examples of the Addition Properties. Students will have a quiz on these properties this Thursday.
- Feel free to contact me with any questions at diana.charaf@archimedeandean.org

Complete homework daily based on the schedule provided below:

Monday 09/15:	pages: 99 - 100
Tuesday 09/16:	pages: 111 - 112
Wednesday 09/17:	pages: 113 - 114
Thursday 09/18:	pages: 115 - 116
Friday 09/19:	pages: 117 - 118



■ Properties of Addition

1. Commutative Property

You can add numbers in any order and the sum stays the same.

Example: $3 + 5 = 5 + 3 = 8$

2. Associative Property

When adding three or more numbers, you can group them in any way and the sum stays the same.

Example: $(2 + 4) + 6 = 2 + (4 + 6) = 12$

3. Identity Property

Adding zero to a number does not change the number.

Example: $9 + 0 = 9$

Use Properties to Add

Go Online

Interactive Examples

Use addition properties and strategies to find the sum.

1. $34 + 62 + 51 + 46 = \underline{193}$

2. $27 + 68 + 43 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 34 \\ 46 \\ 62 \\ +51 \\ \hline 193 \end{array}$$

Diagram illustrating the addition process for problem 1. The numbers 34, 46, and 62 are listed vertically. A bracket on the right groups 34 and 46, with an arrow pointing to the number 10. A bracket on the left groups 46 and 62, with an arrow pointing to the number 10. The number 10 is written to the left of the 46 and 62. Below these numbers is the number 51, followed by a horizontal line and the sum 193.

3. $42 + 36 + 18 = \underline{\hspace{2cm}}$

4. $74 + 35 + 16 + 45 = \underline{\hspace{2cm}}$

Problem Solving

5. A pet shelter has 26 dogs, 37 cats, and 14 gerbils. How many of these animals are in the pet shelter in all?

6. The pet shelter bought 85 pounds of dog food, 50 pounds of cat food, and 15 pounds of gerbil food. How many pounds of animal food did the pet shelter buy?

Lesson Check

8. At summer camp, there are 52 boys, 47 girls, and 18 adults. How many people are at summer camp?
9. At camp, 32 children are swimming, 25 are fishing, and 28 are canoeing. How many children are swimming, fishing, or canoeing?

12. Jemila's dog weighs 76 pounds. What is the dog's weight rounded to the nearest ten pounds?
13. Ms. Kirk drove 164 miles in the morning and 219 miles in the afternoon. Estimate the total number of miles she drove that day.

Use Strategies for Subtraction

Go Online

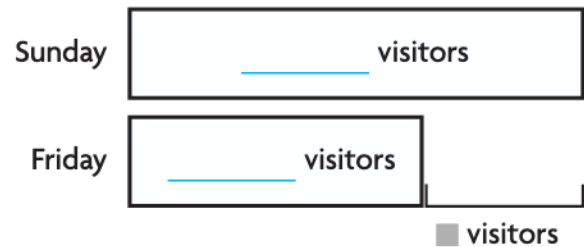
Interactive Examples

Complete the bar model to represent and solve. Then complete the equation for the bar model.

1. There were 285 visitors at the art show on Sunday. There were 173 visitors at the art show on Friday. How many more visitors were at the art show on Sunday than on Friday?

$$\underline{\quad} - \underline{\quad} = \blacksquare$$

$$\underline{\quad} = \blacksquare$$



Problem Solving

The table shows how many of each kind of fruit was sold at the Farmers' Market in one week. Use the table for Problems 2–4. You may use models, number lines, and equations to represent and solve.

2. How many more oranges than melons were sold?

3. How many fewer peaches than grapefruits and melons combined were sold at the market?

Farmers' Market

Fruit	Number Sold
Peaches	218
Oranges	435
Grapefruit	347
Melons	212

Lesson Check

5. Hania scores 87 points bowling. Karl scores 35 fewer points than Hania. How many points does Karl score?
- (A) 122
(B) 112
(C) 52
(D) 42
6. A toy store has 78 action figures. At the end of the day, 52 action figures are left. How many action figures were sold?
- (A) 130
(B) 25
(C) 26
(D) 120
7. There are 278 people in a movie theater. Of those people, 145 are adults, and the rest are children. How many children are in the movie theater?
- (A) 133
(B) 122
(C) 100
(D) 103
8. There are 295 people at a softball game. Of those people, 153 are adults, and the rest are children. How many children are at the softball game?
- (A) 300
(B) 124
(C) 142
(D) 150

Spiral Review

9. How many hundreds are there in 692?
10. Find the missing number.
3, 6, 9, ____, 15, 18
-
-

Name _____

Chapter Review

1. For Problems 1a–1d, choose Yes or No to tell whether the sum is even.

1a. $5 + 8$ Yes No

1b. $9 + 3$ Yes No

1c. $6 + 7$ Yes No

1d. $9 + 5$ Yes No

2. Select the equations that show the Associative Property of Addition. Mark all that apply.

A $4 + (26 + 48) + 2 = (4 + 26) + (48 + 2)$

B $8 + 14 + 21 = 14 + 8 + 21$

C $8 + (12 + 1) = (8 + 12) + 1$

D $(12 + 1) + 5 = (1 + 12) + 5$

3. Select the numbers that round to 300 when rounded to the nearest hundred. Mark all that apply.

A 238

B 250

C 283

D 342

E 359

4. There are 486 books in the classroom library. Complete the chart to show 486 rounded to the nearest 10.

Hundreds	Tens	Ones

5. Write each equation in the box below the better **estimate** of the sum.

$393 + 225 = \blacksquare \quad 481 + 215 = \blacksquare$

$352 + 328 = \blacksquare \quad 309 + 335 = \blacksquare$

600	700

6. Diana sold 336 muffins at the bake sale. Bob sold 287 muffins. Bob estimates that he sold 50 fewer muffins than Diana. How did he **estimate**? Explain.

7. The table shows how many books each class read.

Reading Contest	
Class	Number of Books
Mr. Lopez	273
Ms. Martin	402
Mrs. Wang	247

For Problems 7a–7d, select True or False for each statement.

- 7a. Ms. Martin's class read **about** 100 more books than Mr. Lopez's class. True False
- 7b. The 3 classes read over 900 books altogether. True False
- 7c. Mrs. Wang's class read **about** 50 fewer books than Mr. Lopez's class. True False
- 7d. Ms. Martin's class and Mrs. Wang's class read **about** 700 books. True False

Name _____

8. Janna buys 2 bags of dog food for her dogs. One bag weighs 37 pounds. The other bag weighs 15 pounds. How many pounds do both bags weigh? Explain how you solved the problem.

9. Alema has 52 stamps. He puts 25 stamps on envelopes to mail. How many stamps does he have left?

$$52 - 25 = \underline{\hspace{2cm}}$$

Use the table for Problems 10–12.

Susie's Sweater Shop	
Month	Number of Sweaters Sold
January	402
February	298
March	171

10. The table shows the number of sweaters sold online in three months. How many sweaters were sold in January and February?
_____ sweaters
11. How many more sweaters were sold in January than March?
_____ sweaters
12. How many more sweaters were sold in February and March than in January?
_____ sweaters

13. There are 413 books in the library. There are 365 books checked out. How many books are there in all?

Part A

Complete the bar model to represent and solve.



Part B

Complete the equation.

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \square$$

$$\underline{\hspace{2cm}} = \square$$

14. Alexandra has 78 emails in her inbox. She deletes 47 emails. How many emails are left in her inbox? Draw jumps and label the number line to show your thinking.



15. Koa and Li are having an acorn race. Koa will win if he finds at least 30 more acorns than Li. Koa finds 317 acorns. Li finds 285 acorns. Which is a true statement about Koa and Li's acorn race?
- (A) Li wins because he finds 32 more acorns than Koa.
 - (B) Li wins because Koa only finds 32 more acorns than he does.
 - (C) Koa wins because he finds more acorns than Li.
 - (D) Koa wins because he finds 32 more acorns than Li.

Name _____

16. Anu's frog jumps 24 inches. Then it jumps another 26 inches. How far did Anu's frog jump? Use a number line to represent and solve.



$24 + 26 = \underline{\quad}$ inches

17. A pet shelter has 16 dogs, 30 cats, and 24 birds. How many animals are at the pet shelter in all?

 animals

18. Mrs. Lin bought 24 apples, 12 pears, 38 strawberries, and 36 oranges for the class celebration. To find the total number of pieces of fruit, Mrs. Lin added $24 + 12 + 38 + 36$.

Part A

First, she rearranged the addends as $24 + 36 + 12 + 38$. What property did she use? Why did she do that?

Part B

How many pieces of fruit did Mrs. Lin buy? pieces of fruit

19. Alexa and Erika collect shells. The tables show the kinds of shells they collected.

Alexa's Shells	
Shell	Number of Shells
Scallop	36
Jingle	95
Clam	115

Erika's Shells	
Shell	Number of Shells
Scallop	82
Clam	108
Whelk	28

Part A

Who collected more shells? How many did she collect? About how many more is that? Explain how you solved the problem.

Part B

Alexa and Erika have the greatest number of what kind of shell? How many shells of that kind do they have? Show your work.

20. Write a rule for the pattern. Then write the third number.

29, 33, _____ 41, 45, 49

Rule: _____

21. Create a pattern that uses the rule *subtract 5*. Write the first, second, third, fourth and fifth numbers.

22. Write the name of the property that you can use to find the sum $22 + 0$.
