Grade 4
Operations and Algebraic Thinking
4.OA.1-2
Goal:
To interpret multiplication equations as comparisons and solve multiplication and division word problems involving multiplicative comparisons.

Essential Questions:
- How does making effective comparisons help us in problem solving?
- Why is there an opposite for every mathematical operation?
- Is there one “best” way to approach problem solving?

Prerequisites:
- Place Value concepts
- Solving problems using repeated addition
- Fluent with multiplication facts 0-12
- Skip counting to compute

Embedded Mathematical Practices
MP.1 Make sense of problems and persevere in solving them
MP.2 Reason abstractly and quantitatively
MP.3 Construct viable arguments and critique the reasoning of others
MP.4 Model with mathematics
MP.5 Use appropriate tools strategically
MP.6 Attend to precision
MP.7 Look for and make use of structure
MP.8 Look for and express regularity in repeated reasoning

Lesson Structure:
- Assessment Task
- Prerequisite Skills
- Focus Questions
- Guided Practice
- Homework
- Journal Question

Lesson 1
4.OA.1 Interpret a multiplication equation as a comparison

Lesson 2 - Product Unknown
4.OA.2 Multiply or divide to solve word problems involving multiplicative Comparison.

Lesson 3 - Set Size Unknown
4.OA.2 Multiply or divide to solve word problems involving multiplicative Comparison.

Lesson 4 - Multiplier Unknown
4.OA.2 Multiply or divide to solve word problems involving multiplicative Comparison.

Lesson 5 - Golden Problem
4.OA.1-2 Using the four operations to solve word problems.
Content Overview: Multiplicative Comparison

Solving Multiplicative Comparison Word Problems

Multiplication as Comparing

In multiplicative comparison problems, there are two different sets being compared. The first set contains a certain number of items. The second set contains multiple copies of the first set. Any two factors and their product can be read as a comparison. Let’s look at a basic multiplication equation: \(4 \times 2 = 8\).

Different Types of Problem

There are three kinds of multiplicative comparison word problems (see list below). Knowing which kind of problem you have in front of you will help you know how to solve it.

- Product Unknown Comparisons
- Set Size Unknown Comparisons
- Multiplier Unknown Comparisons

Multiplicative Comparison Product Unknown

In some multiplicative comparison word problems, you are given the number of items in one set, and you are given the “multiplier” amount. The multiplier amount tells you how many times bigger (or more) the second set is than the first. “Bigger” can also mean “longer,” or “wider,” or “taller” in problems involving measurement, or “faster” in problems involving a rate of speed. These problems in which you know both the number in one set, and the multiplier are called “Product Unknown” comparisons, because the total is the part that is unknown. In order to answer the question you are being asked, you need to multiply the number in the set by the multiplier to find the product.

Multiplicative Comparison Set Size Unknown

In some multiplicative comparison word problems, the part that is unknown is the number of items in one set. You are given the amount of the second set, which is a multiple of the unknown first set, and the "multiplier" amount, which tells you how many times bigger (or more) the second set is than the first. "Bigger" can also mean "longer," or "wider," "older," or "taller" in problems involving measurement, or "faster" in problems involving a rate of speed. These problems in which you know both the number in the second set, and the multiplier are called “Set Size Unknown” comparisons, because the number in one set is the part that is unknown. In order to answer the question you are being asked, you need to use the inverse operation of multiplication: division. This kind of division is “partition” or “sharing” division. Dividing the number in the second set by the multiplier will tell you the number in one set, which is the question you are being asked in this kind of problem.

Multiplicative Comparison Multiplier Unknown

In some multiplicative comparison word problems, you are given the number of items in one set, and you are given the number of items in the second set, which is a multiple of the first set. The "multiplier" amount is the part that is unknown. The multiplier amount tells you how many times bigger (or more) the second set is than the first. "Bigger" can also be "longer," or "wider," or "older," or "taller" in problems involving measurement, or "faster" in problems involving a rate of speed. These problems in which you know both the number in one set, and the number in the second set are called “Multiplier Unknown” comparisons, because the multiplier is the part that is unknown. In order to answer the question you are being asked, you need to use the inverse (opposite) operation of multiplication: division. This kind of division is called “measurement” division.
Multiple Representations to Multiplicative Comparisons

- $5 \times 3 = ?$
- $12 \div 3 = ?$
- $12 \div 2 = ?$
- Set Size Unknown
- Multiplier Unknown
- Product Unknown

12

3 3 3 3 3

...
Examples

Multiplicative Comparison Product Unknown

“An orange hat costs $6. A red hat costs 3 times as much as the orange hat. How much does the red hat cost?”

In solving this problem, the student should identify $6 as the quantity that is being multiplied by 3. The student should write the problem using a symbol to represent the unknown.

($6 \times 3 = \square$)

Multiplicative Comparison Multiplier Unknown

A red hat costs $18 and a blue hat costs $6. How many times as much does the red hat cost as the blue hat?

In solving this problem, the student should identify $18 as the quantity being divided into shares of $6.

The student should write the problem using a symbol to represent the unknown. ($18 \div 6 = \square$)
4.OA.1: Lesson 1
Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.

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**Quantity A**

Compare the two quantities above. Quantity A has a group of four triangles. How many times more triangles does Quantity B have than Quantity A?

**Quantity B**

Quantity B has _____ times as many triangles as Quantity A.

Write an equation that shows how many triangles are in Quantity B.

_____ × _____ = _____

**Quantity C**

Compare the two quantities above. Quantity C has a group of five triangles. How many times more triangles does Quantity D have than Quantity C?

**Quantity D**

Quantity D has _____ times as many triangles as Quantity C.

Write an equation that shows how many triangles are in Quantity C.

_____ × _____ = _____

How are your two equations alike? How are they different?

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**Focus Questions**
**Question 1:** How can we interpret a multiplication equation as a comparison?

**Journal Question**
How are 2 x 6 and 6 x 2 different?
### 4.OA.1: Lesson 1
Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.

For each problem, write an equation and solve:

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1) There are 15 bags of crayons with 3 crayons in each bag. How many crayons are there in all?
   **Equation:** ________________
   **Sentence answer:** __________________________

2) There are 7 bags of books with 3 books in each bag. How many books are there in all?
   **Equation:** ________________
   **Sentence answer:** __________________________

3) There are 9 packs of stickers with 4 stickers in each pack. How many stickers are there in all?
   **Equation:** ________________
   **Sentence answer:** __________________________

4) You will collect 8 bugs each month for 5 months. How many bugs will you collect?
   **Equation:** ________________
   **Sentence answer:** __________________________

5) There are 5 piles of coins with 15 coins in each pile. How many coins are there in all?
   **Equation:** ________________
   **Sentence answer:** __________________________

6) Rita has 6 packs of 7 pencils. She gives away 7 pencils. How many pencils does she have left?
   **Equation:** ________________
   **Sentence answer:** __________________________

7) Jackie has 8 packs of 8 crayons. She gives away 16 crayons. How many crayons does she have left?
   **Equation:** ________________
   **Sentence answer:** __________________________

8) There are 4 red cards and 3 blue cards on each table. How many cards are on 7 tables?
   **Equation:** ________________
   **Sentence answer:** __________________________

9) There are 7 plastic chairs and 8 metal chairs in each room. How many chairs are in 9 rooms?
   **Equation:** ________________
   **Sentence answer:** __________________________

10) There are 5 wood picture frames and 2 metal picture frames on each shelf. How many picture frames are on 4 shelves?
    **Equation:** ________________
    **Sentence answer:** __________________________
### 4.OA.1: Lesson 1
Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.

**For each figure, draw straight lines to complete the figure.**

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1) There are 12 bags of crayons with 5 crayons in each bag. How many crayons are there in all?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

2) There are 9 bags of books with 4 books in each bag. How many books are there in all?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

3) There are 7 packs of stickers with 3 stickers in each pack. How many stickers are there in all?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

4) You will collect 3 bugs each month for 9 months. How many bugs will you collect?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

5) There are 4 piles of coins with 12 coins in each pile. How many coins are there in all?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

6) Rita has 4 packs of 9 pencils. She gives away 9 pencils. How many pencils does she have left?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

7) Jackie has 6 packs of 7 crayons. She gives away 14 crayons. How many crayons does she have left?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

8) There are 6 red cards and 8 blue cards on each table. How many cards are on 9 tables?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

9) There are 2 plastic chairs and 7 metal chairs in each room. How many chairs are in 8 rooms?
   
   **Equation:** ________________
   
   **Sentence answer:** _________________________________

10) There are 8 wood picture frames and 5 metal picture frames on each shelf. How many picture frames are on 6 shelves?
    
    **Equation:** ________________
    
    **Sentence answer:** _________________________________
Solve the following problem:

Gina and her brother Shawn are saving money to go to an amusement park. This month, Gina saved three times as much as she saved last month and Shawn saved twice as much as he saved last month. Last month, Gina saved $12 and Shawn saved $10.

➢ How much money did Gina save this month?

Write an equation \( \rightarrow \) Gina saved _______ this month.

➢ How much money did Shawn save this month?

Write an equation \( \rightarrow \) Shawn saved _______ this month.

➢ What information in the word problem tells you that this is a comparison problem?

➢ In Gina’s case, what is the “set size” and which is the “multiplier”?

Set = ______________ Multiplier = _________

➢ In Shawn’s case, what is the “set size” and which is the “multiplier”?

Set = ______________ Multiplier = _________

Focus Questions

Question 1: How can you identify the multiplier?

Question 2: How can you identify the set that is being multiplied?

Journal Question

What do we mean by “product” in math?
### Multiplicative Comparison - Product Unknown

Solve each problem below by identifying the number in one set, and the multiplier. Multiply the number in one set by the multiplier. Go back to the problem to make sure you have answered the question being asked, and that your answer makes sense.

1) A rabbit can go two feet in one jump. A kangaroo can go five times as far as a rabbit. How far can a kangaroo go in one jump?

   **The number in one set is _____**. The multiplier is _____.

   ____ x ____ = ____

   The kangaroo can go____ feet in one jump. Since you are multiplying a whole number by a whole number, the distance the kangaroo can go should be larger than the distance the rabbit can go. Is your answer reasonable?

2) Amanda grew two plants for the science fair. The first plant was eight centimeters tall. The second plant was three times as tall. How tall was the second plant?

   **The number in one set is _____**. The multiplier is _____.

   ____ x ____ = ____

   The second plant was____ centimeters tall. Since you are multiplying a whole number by a whole number, the height of the second plant should be more than the height of the first plant. Is your answer reasonable?

3) Chris can go 10 miles per hour on his bicycle. Jill can go seven times that fast on her motorcycle. How fast can Jill go on her motorcycle?

   **The number in one set is _____**. The multiplier is _____.

   ____ x ____ = ____

   Jill can go ____ miles per hour on her motorcycle. Since you are multiplying a whole number by a whole number, the speed Jill can go on her motorcycle should be faster than the speed Chris can go on his bicycle. Is your answer reasonable?
4.OA.2: Lesson 2 - Product Unknown

Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

**Multiplicative Comparison - Product Unknown**

Solve each problem below by identifying the number in one set, and the multiplier. Multiply the number in one set by the multiplier. Go back to the problem to make sure you have answered the question being asked, and that your answer makes sense.

1) Sara can paint 4 paintings in one hour. Mary can paint three times as many paintings in one hour than Sara. How many paintings can Mary paint in one hour?

   The number in one set is _____. The multiplier is _____.

   ____ x _____ = ____

   Mary can paint______ paintings in one hour. Since you are multiplying a whole number by a whole number, the number of paintings that Mary paints should be larger than the number of paintings Sara paints in one hour. Is your answer reasonable?

2) Nick has two bags of coins. The first bag has 6 coins. The second bag has 7 times as many coins. How many coins are in the second bag?

   The number in one set is _____. The multiplier is _____.

   ____ x _____ = ____

   The second bag had_____ coins. Since you are multiplying a whole number by a whole number, the number of coins in the second bag should be more than the number of coins in the first bag. Is your answer reasonable?

3) Malcolm has two dogs. Butkus is a 10 inch tall beagle. Fluffy, the German Sheppard is 3 times taller than Butkus. How tall is Fluffy?

   The number in one set is _____. The multiplier is _____.

   ____ x _____ = ____

   Fluffy is _____ tall. Since you are multiplying a whole number by a whole number, the height of Fluffy should be greater than the height of Butkus. Is your answer reasonable?
4.OA.2: Lesson 3 – Set Size Unknown

Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

### Guided Practice

Solve the following problem:

Student Council President Sheryl collected 48 aluminum cans for recycling during the month of May. She collected 4 times as many cans as Vice President Mike.

- How many cans did Vice President Mike collect?

Write an equation:  

\[ \text{Mike collected } \square \text{ cans.} \]

- What information in the word problem tells you that this is a comparison problem?

- In this problem, what is the “multiplier”?

Multiplier is ________

- In this problem, what is the amount in the known set?

Known set is ________

### Focus Questions

**Question 1:** What do we mean by Set Size?

**Question 2:** What does inverse operation mean?

### Journal Question

Explain why division is the opposite of multiplication.
Multiplicative Comparison - Set Size Unknown

Solve each problem below by identifying the multiplier, and the number in the second set, which is a multiple of the first, unknown set. Divide the second set by the multiplier to find your answer. Go back to the problem to make sure you have answered the question being asked, and that your answer makes sense.

1) It costs $500 to take a bus tour of Europe. This is four times as much as it costs to take a bus tour of Mexico City. How much is the bus tour of Mexico City?

   The multiplier is ______. The number in the second set is ______.

   ______ ÷ ______ = ______

   The tour of Mexico City costs $________. If you multiply the multiplier by your answer, you should get the cost of the European tour. Is your answer reasonable?

2) There are 256 students outside on the playground. This is eight times as many students as there are inside the cafeteria. How many students are inside the cafeteria?

   The multiplier is ______. The number in the second set is ______.

   ______ ÷ ______ = ______

   There are______ students inside the cafeteria. If you multiply the multiplier by your answer, you should get the number of students who are outside on the playground. Is your answer reasonable?

3) Franklin Middle School has 1,593 students. It has three times as many students as the nearest elementary school, Roosevelt Elementary. How many students attend Roosevelt Elementary School?

   The multiplier is ______. The number in the second set is ______.

   ______ ÷ ______ = ______

   There are______ students attending Roosevelt Elementary School. If you multiply the multiplier by your answer, you should get the number of students who are attending Franklin Middle school. Is your answer reasonable?
4.OA.2: Lesson 3 – Set Size Unknown

Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

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Multiplicative Comparison - Set Size Unknown

Solve each problem below by identifying the multiplier, and the number in the second set, which is a multiple of the first, unknown set. Divide the second set by the multiplier to find your answer. Go back to the problem to make sure you have answered the question being asked, and that your answer makes sense.

1) A jacket costs $120 at the Jackets Plus store. This is three times as much as it costs at the Newark Jackets store. How much is the jacket at Newark Jackets?

   The multiplier is _____.  The number in the second set is _____.

   ____ ÷ _____  = ______

   The jacket at Newark Jackets costs $________. If you multiply the multiplier by your answer, you should get the cost of the jacket at Jackets Plus store. Is your answer reasonable?

2) There are 360 people outside the gym waiting for a game to start. This is nine times as many people as there are inside the gym. How many people are inside the gym?

   The multiplier is _____.  The number in the second set is _____.

   ____ ÷ _____  = ______

   There are____ people inside the gym. If you multiply the multiplier by your answer, you should get the number of people who are outside the gym. Is your answer reasonable?

3) The Newark Video Hut had 1,240 customers in the afternoon. This was four times as many customers as there were in the morning. How many customers were there in the morning?

   The multiplier is _____.  The number in the second set is _____.

   ____ ÷ _____  = ______

   There were _____ customers in the morning at the Newark Video Hut. If you multiply the multiplier by your answer, you should get the number of customers there were in the afternoon. Is your answer reasonable?
Christopher Columbus’ The Pinta’s top speed was 5 knots. A United States Battleship’s top speed is 25 knots. How many times faster is than The Pinta is a Battleship?

➢ How many times faster than The Pinta is a Battleship?

Write an equation ➔ The Battleship is _________ times faster.

➢ What information in the word problem tells you that this is a comparison problem?

➢ In this problem, what is the first set size? First set size is _________

➢ In this problem, what is the second set size? Second set size is _________

Focus Questions
Question 1: How can we determine how much larger one set is when compared to another set?

Journal Question
What other things about ships can we compare by measuring?
Multiplicative Comparison - Multiplier Unknown

Solve each problem below by identifying the number in one set, and the number in the second set, which is a multiple of the first. Divide the second set by the first set. Go back to the problem to make sure you have answered the question being asked, and that your answer makes sense.

1) The plane goes 700 miles an hour. The car goes 50 miles an hour. How many times faster than the car is the plane?

   The number in one set is _____. The number in the second set is _____.

   ____ ÷ ____ = _____

   The plane is ____ times faster than the car. If you multiply the speed of the car by your answer, you should get the speed of the plane. Is your answer reasonable?

2) Eric has 9 video games. Bryan has 54 video games. How many times more video games does Bryan have than Eric?

   The number in one set is _____. The number in the second set is _____.

   ____ ÷ ____ = _____

   Bryan has ____ times as many video games as Eric. If you multiply the number of video games that Eric has by your answer, you should get the number of video games that Bryan has. Is your answer reasonable?

3) Shannon is 37 inches tall. Her teenaged brother, Rick, is 74 inches tall. How many times as tall as Shannon is Rick?

   The number in one set is _____. The number in the second set is _____.

   ____ ÷ ____ = _____

   Rick is ____ times as tall as Shannon. If you multiply the number of inches in Shannon's height by your answer, you should get the number of inches in Rick's height. Is your answer reasonable?
Multiplicative Comparison - Multiplier Unknown

Solve each problem below by identifying the number in one set, and the number in the second set, which is a multiple of the first. Divide the second set by the first set. Go back to the problem to make sure you have answered the question being asked, and that your answer makes sense.

1) A truck holds 440 jugs of milk. A crate holds 8 jugs of milk. How many times more jugs does the truck hold than a crate?

   The number in one set is _____. The number in the second set is _____.
   
   ____ ÷ ____ = _____

   The truck holds ____ times more jugs of milk than the crate. If you multiply number jugs in a crate by your answer, you should get the number of jugs a truck holds. Is your answer reasonable?

2) Newark Central has won 8 games. Newark West has won 56 games. How many times more games has Newark West won than Newark Central?

   The number in one set is _____. The number in the second set is _____.
   
   ____ ÷ ____ = _____

   Newark West has won ____ times as many games as Newark Central. If you multiply the number of games that Newark Central won by your answer, you should get the number of games that Newark West won. Is your answer reasonable?

3) Anthony is 12 years old. His great-uncle, George, is 84 years old. How many times as old as Anthony is George?

   The number in one set is _____. The number in the second set is _____.
   
   ____ ÷ ____ = _____

   George is ____ times as old as Anthony. If you multiply Anthony’s age by your answer, you should get George’s age. Is your answer reasonable?
4.OA.1-2: Lesson 5 – Golden Problem
Use the four operations with whole numbers to solve problems.

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**Introductory Task**
There were 3 pills in *Bottle 1*. The pharmacist increased the number of pills in *Bottle 1* by 4 times. How many pills are there now in *Bottle 1*?

*Write an equation:*

__________________

*Answer: _______

The pharmacist put 3 times as many pills in *Bottle 2* than in *Bottle 1*. How many pills are there now in *Bottle 2*?

*Write an equation:*

__________________

*Answer: _______

*Bottle 3 ended up with 48 pills. How many times more pills are in *Bottle 3* than in *Bottle 1*?*

*Write an equation:*

__________________

*Answer: _______

Besides having different numbers and answers, in your own words, describe one major way that the three problems above are different and also explain what they have in common? Use additional paper to answer this question.

**Focus Questions**

**Question 1:** How many different types of multiplicative comparison problems are there?

**Question 2:** How does division help to solve a multiplication problem?

**Journal Question**

Do you think it is possible for a multiplier to be a fraction? What do we do if it is?
Golden TASK RUBRIC

Mathematical Problem Solving: Thinking and Applying

SCORE POINT = 3
Part 1: The student correctly provides equations for all three bottles
Bottle 1: $3 \times 4 = 12$
Bottle 2: $3 \times 12 = 36$
Bottle 3: $48 \div 12 = 4$

AND

Part 2: Correctly determines how many pills are in each of the three bottles
Bottle 1: answer: 12 pills
Bottle 2: answer: 36 pills
Bottle 3: answer: 4 times

AND

Part 3: Describes one way the three problems are alike and one way they are different.
*Note: In order to preserve the Common Core’s expectation of rigor, the descriptions that are expected here need to go beyond the trivial and/or obvious differences and similarities, i.e., “the numbers are different”, “all the bottles have pills”, etc.. Additionally, the descriptions need to include vocabulary found within the lesson such as “multiplier”, “sets”, “groups”, etc..

SCORE POINT = 2
The student correctly solves two of the three parts. Explanation or steps must be shown on how the student arrives at the answers. The explanation may not be clear.

SCORE POINT = 1
The student correctly solves one of the three parts. However, the student shows incomplete explanation.

SCORE POINT = 0
The response shows insufficient understanding of the problem’s essential mathematical concepts. The procedures, if any, contain major errors. There may be no explanation of the solution or the reader may not be able to understand the explanation.
Fluency Practice

Name _____________________ Date ___________________

Addition without regrouping

Fill in the blanks:

1. We say _________________ and _______________ are inverse or opposite operations.

2. The putting together of two groups is called ____________.

3. The answer to an addition problem is called the ________.

Work the problems:

4.  
   \[ 183 + 616 \]

5.  
   \[ 307 + 791 \]

6.  
   \[ 230 + 969 \]

When adding numbers that are written across or horizontal. It is important to line up the numbers in the correct place values. Recopy these problems correctly and add:

7.  \[ 100 + 22 + 31 + 2 = \]

8.  \[ 203 + 4 + 80 + 13 = \]
Fill in the blanks:

9. When we add numbers together we start to the right in the __________ column and work left.

10. The numbers we add together are called the ________________.

Work the problems:

11. 633
    + 148

12. 801
    + 617

13. 216
    + 523

14. 481 + 204 =

15. 103 + 555 + 31 =

16. Valerie’s puppy weighed 25 pounds when she adopted it from the animal shelter. The puppy has since gained 32 pounds. What does the puppy weigh now?

17. Three friends play a video game. Their scores are 304 points, 231 points and 352 points. What is the total number of points they earned?
Addition with regrouping

Work the problems:

18. \[954 + 657\]
19. \[469 + 539\]
20. \[395 + 405\]

21. \[524 + 239 + 217 = \]
22. \[845 + 17 + 72 = \]

23. You decide to buy three turkeys from the supermarket. They weigh 17 pounds, 23 pounds and 15 pounds. What is the total number of pounds purchased?

24. A pizza delivery driver traveled 143 miles on Monday, 208 miles on Tuesday and 177 miles on Friday. What is the total number of miles driven on the three days.
Find the sum:

25. \(1097\)

\[+4603\]

26. \(9115\)

\[+235\]

27. \(1345\)

\[+7291\]

28. \(467 + 34 + 1042 = \)

29. \(636 + 727 = \)

30. \(603 + 338 + 29 = \)

31. \(538 + 538 = \)

32. When Gunnar bought a used motorcycle last year, the odometer read 17,237 miles. Since his purchase he has driven another 6,168 miles. What does the odometer read now?
Name _____________________  Date ___________________

Subtraction without regrouping

33. When we see the words “how many are left” or “how many
more or less” we should realize we have to ____________
the numbers given.

34. The answer to a subtraction problem is called the ________.

Work these problems:

35. 89
    - 27

36. 805
    - 103

37. 1299
    - 107

38. 659 – 236 =

39. 8,261 – 4,030 =

40. For their vacation, a family needs to drive 438 miles. If they drive
316 miles the first day, how many more miles do they have left to drive?

41. 399
    - 269

42. 605
    - 203

43. 1859
    - 721
44. $4,348 - 237 =$  
45. $599 - 222 =$  

46. $637 - 136 =$  
47. $542 - 310 =$  

48. Jessie wants to buy a bike. It will cost $174. If she has saved $141, how much more money does she need to save?
Subtraction with regrouping

49) How do you know when you need to regroup with subtraction?

50) Solve:

\[634 - 472 = \quad 534 - 76 =\]

\[7,527 - 716 = \quad 645 - 578 =\]

51) The class sold 754 plants as a fundraiser this year. Last year they only sold 499 plants. How many more plants did they sell this year?

52) To drive to your destination for vacation it is 784 miles. If you drive 495 miles on the first day, how many more miles do you need to drive?
53) Solve:

657 – 438 = 3,463 – 574 =

6,273 – 5,195 = 8,340 – 274 =

7,432 – 2,375 = 684 – 99 =

5,327 – 1,482 = 953 – 874 =

54) At Friday night’s football game, 648 people were in attendance. Last week 829 people were in attendance. How many more people attended last week?
Name ________________________________________

Review of Subtraction with and without regrouping

Fill in the blanks:

55) We say _________________ and ______________ are inverse or opposite operations.

56) The answer to a subtraction problem is called the ________.

Work these problems:

57) \[ \begin{array}{c} 983 \\ \hline 611 \end{array} \]
58) \[ \begin{array}{c} 897 \\ \hline 491 \end{array} \]
59) \[ \begin{array}{c} 437 \\ \hline 417 \end{array} \]

When subtracting numbers that are written across or horizontal. It is important to line up the numbers in the correct place values. Recopy these problems correctly and subtract:

60) \[ 854 - 311 = \]
61) \[ 583 - 260 = \]

Work the problems:

62) \[ \begin{array}{c} 984 \\ \hline 539 \end{array} \]
63) \[ \begin{array}{c} 762 \\ \hline 405 \end{array} \]