



Family Letter

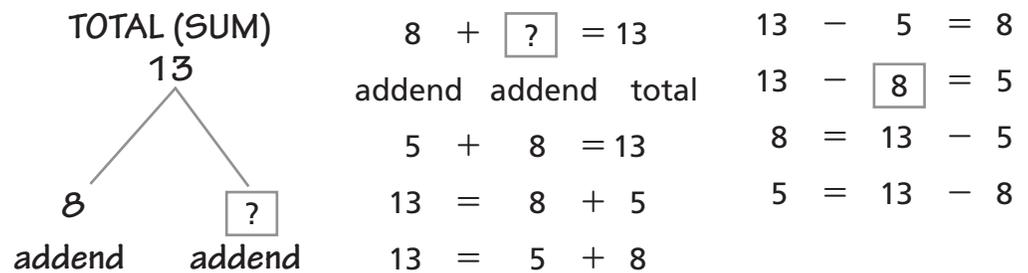
Content Overview

Dear Family,

In this unit, your child will solve addition, subtraction, multiplication, and division problems involving unknown addends and factors.

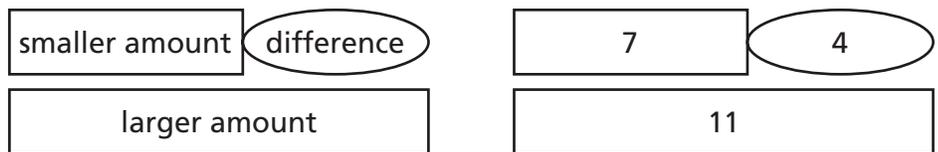
- If one of the addends is unknown, it can be found by subtracting the known addend from the total or by counting on from the known addend to the total.
- If the total is unknown, it can be found by adding the addends.
- If one of the factors is unknown, it can be found by dividing the product by the other factor.
- If the product is unknown, it can be found by multiplying the factors.

Math Mountains are used to show a total and two addends. Students can use the Math Mountain to write an equation and then solve the equation to find the unknown.



Equations with numbers alone on the left are also emphasized to help with the understanding of algebra.

Comparison Bars are used to solve problems that involve one amount that is more than or less than another amount. Drawing Comparison Bars can help a student organize the information in the problem in order to find the unknown smaller amount, the unknown larger amount, or the difference.



Please call or write if you have any questions or comments.

Sincerely,
Your child's teacher





Carta a la familia

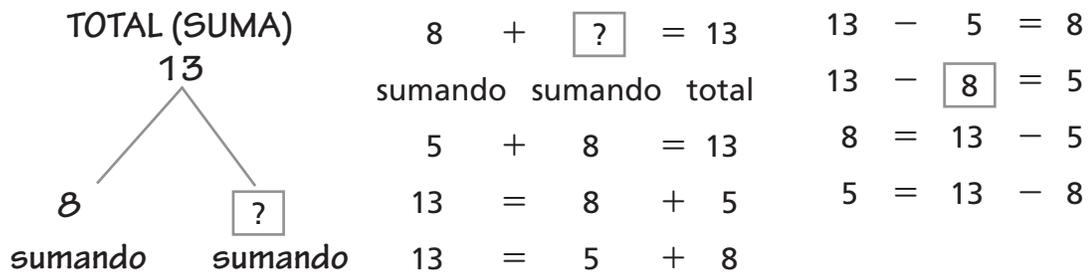
Un vistazo general al contenido

Estimada familia:

En esta unidad, su niño resolverá sumas, restas, multiplicaciones y divisiones con sumandos o factores desconocidos.

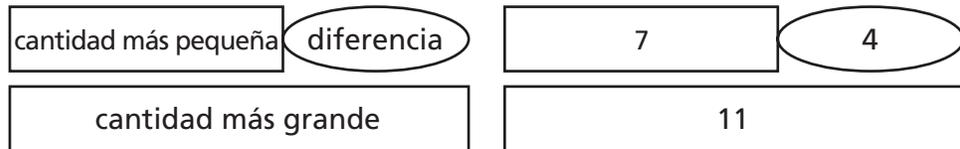
- Si uno de los sumandos se desconoce, puede hallarse restando el sumando conocido del total, o contando hacia adelante desde el sumando conocido hasta llegar al total.
- Si el total se desconoce, puede hallarse sumando los sumandos.
- Si uno de los factores se desconoce, puede hallarse dividiendo el producto entre el otro factor.
- Si el producto se desconoce, puede hallarse multiplicando los factores.

Para mostrar un total y dos sumandos se usan las **Montañas matemáticas**. Los estudiantes puede usarlas para escribir una ecuación, y al resolverla, hallar el elemento desconocido.



Se hace énfasis en las ecuaciones que tienen números solos en el lado izquierdo, para facilitar la comprensión del álgebra.

Para resolver problemas con una cantidad que es más o menos que otra, se usan **Barras de comparación**. Estas barras sirven para organizar la información del problema, y hallar así, la cantidad desconocida más pequeña, la más grande o la diferencia.



Si tiene alguna pregunta o algún comentario, por favor comuníquese conmigo.

*Atentamente,
El maestro de su niño*



CA CC

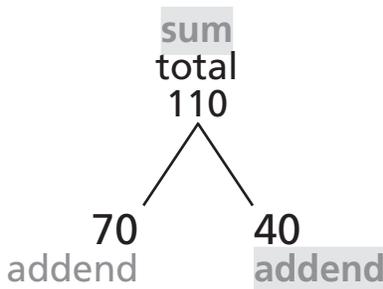
En la Unidad 5 se aplican los siguientes estándares auxiliares, contenidos en los *Estándares estatales comunes de matemáticas con adiciones para California*: 3.OA.3, 3.OA.4, 3.OA.8, 3.NBT.1, 3.NBT.2 y todos los de prácticas matemáticas.

VOCABULARY

 total
 addend
 sum

► Math Mountains and Equations
Complete.

1. Look at the Math Mountain and the 8 equations. What relationships do you see? In each equation, label each number as an **addend** (A) or the **total** (T).



$110 = 70 + 40$

$70 + 40 = 110$

$110 = 40 + 70$

$40 + 70 = 110$

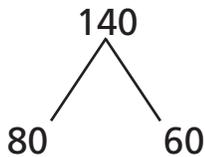
$40 = 110 - 70$

$110 - 70 = 40$

$70 = 110 - 40$

$110 - 40 = 70$

2. Write the 8 equations for this Math Mountain. Label each number as the total (T) or an addend (A).



► **Solve and Discuss**

Solve each problem. Label your answers.

Show your work.

3. **Add To** Chris's group picked 80 apples. His mother's group picked 60 more. How many apples do they have now?

4. **Take From** Chris's group had 140 apples. They ate 80 of them. How many apples do they have now?

5. **Put Together/Take Apart** Alison's class brought 70 juice boxes to the picnic. Taylor's class brought 50 juice boxes. How many juice boxes did they bring altogether?

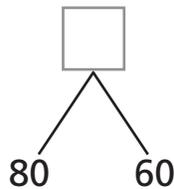
6. **Put Together/Take Apart** There are 120 juice boxes at the picnic. Alison puts 70 on tables and leaves the rest in the cooler. How many juice boxes are in the cooler?

► Represent Word Problems with Math Tools

The equations and Math Mountains below show the word problems on page 274.

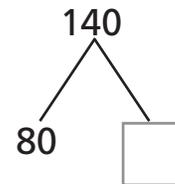
Add To

$$\begin{array}{r} 80 \\ \text{Chris's} \\ \text{group} \end{array} + \begin{array}{r} 60 \\ \text{Mom's} \\ \text{group} \end{array} = \boxed{} \\ \text{total}$$



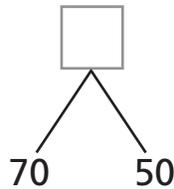
Take From

$$\begin{array}{r} 140 \\ \text{total} \\ \text{(sum)} \end{array} - \begin{array}{r} 80 \\ \text{ate} \end{array} = \boxed{} \\ \text{now}$$



Put Together/Take Apart

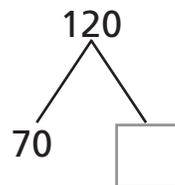
$$\begin{array}{r} 70 \\ \text{Alison's} \\ \text{class} \end{array} + \begin{array}{r} 50 \\ \text{Taylor's} \\ \text{class} \end{array} = \boxed{} \\ \text{total}$$



Put Together/Take Apart

$$\begin{array}{r} 120 \\ \text{total} \end{array} - \begin{array}{r} 70 \\ \text{tables} \end{array} = \boxed{} \\ \text{cooler}$$

$$\begin{array}{r} 70 \\ \text{tables} \end{array} + \begin{array}{r} \boxed{} \\ \text{cooler} \end{array} = \begin{array}{r} 120 \\ \text{total} \end{array}$$



- Write the unknown numbers in the boxes.
- How are these math tools the same?
How are they different?

- Math Journal** Write a word problem for this equation: $110 - 40 = \boxed{}$. Then solve it.



VOCABULARY
expression
equation

▶ **PATH to FLUENCY** Discuss the = and \neq Signs

An **expression** is a combination of numbers, variables, and/or operation signs. Expressions do not have an equal sign.

An **equation** is made up of two equal quantities or expressions. An equal sign (=) is used to show that the two sides are equal.

$$8 = 5 + 3 \quad 4 + 2 = 6 \quad 7 = 7 \quad 3 + 2 = 2 + 3 \quad 6 - 2 = 1 + 1 + 2$$

The "is not equal to" sign (\neq) shows that two quantities are not equal.

$$7 \neq 5 + 3 \quad 4 + 2 \neq 8 \quad 7 \neq 6 \quad 6 - 2 \neq 2 + 3 \quad 5 + 2 \neq 1 + 1 + 3$$

10. Use the = sign to write four equations. Vary how many numbers you have on each side of the sign.

11. Use the \neq sign to write four "is not equal to" statements. Vary how many numbers you have on each side of the sign.

Write a number to make the number sentence true.

12. $160 = \square + 90$

13. $30 + \square \neq 120$

14. $70 + 20 = 20 + \square$

15. $150 - \square = 70$

16. $\square \neq 140 - 70$

17. $60 - 20 \neq 10 + 10 + \square$

Write = or \neq to make a true number sentence.

18. $80 + 20 + 40$ ___ $90 + 50$ 19. 80 ___ $60 - 20$ 20. 70 ___ $40 + 30$

► Solve Unknown Addend Word Problems

Draw a Math Mountain and write and label an equation with a variable. Then solve each problem.

Show your work.

1. Put Together/Take Apart:

Unknown Addend Stacy invited 90 girls and some boys to her party. 160 children were invited in all. How many boys were invited?

2. Put Together/Take Apart:

Unknown Addend There were 150 people at the park. 70 were playing soccer. The others were playing softball. How many people were playing softball?

3. **Add To: Unknown Addend** Jan planted 80 tulips last week. Today she planted some lilies. Now she has 170 flowers. How many lilies did she plant?

4. **Take From: Unknown Addend** Tim's team had 140 tennis balls. Then his brother's team borrowed some. Now Tim's team has 60 tennis balls. How many did his brother's team borrow?



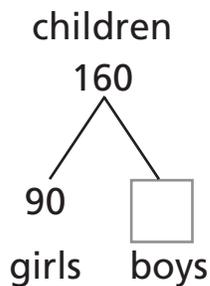
► Represent Unknown Addends with Math Tools

The equations and Math Mountains below show the word problems on page 277.

Put Together/Take Apart:
Unknown Addend

$$90 + b = 160$$

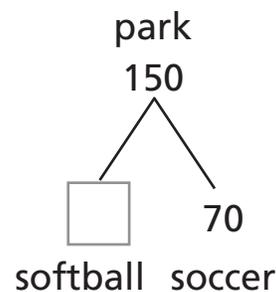
girls boys children



Put Together/Take Apart:
Unknown Addend

$$150 - s = 70$$

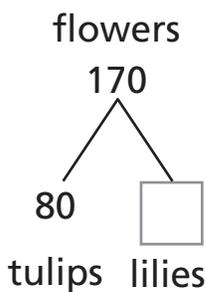
park softball soccer



Add To: Unknown Addend

$$80 + l = 170$$

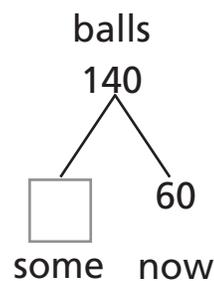
tulips lilies flowers



Take From: Unknown Addend

$$140 - n = 60$$

balls some now



- Write the unknown numbers in the boxes and above the variables.
 - How are these math tools alike? How are they different?
-

► Solve Unknown Factor Word Problems

Write an equation for each word problem. Use a variable to represent the unknown factor. Then solve the problem.

Show Your Work.

7. A toymaker has 36 boxes of toy trains to ship to 4 toy shops. Each shop will get the same number of boxes. How many boxes of toy trains will each shop get?

8. There are 56 cars in a parking lot. There are 8 rows and the same number of cars is in each row. How many cars are in each row?

9. An apartment building has 42 apartments. There are 6 apartments on each floor. How many floors are in the apartment building?

10. There are 48 students in the marching band. The students stand in equal rows of 8. How many rows of students are there?

► **Solve Unknown Factor Word Problems (continued)**

**Write an equation for each word problem.
Use a variable to represent the unknown
factor. Then solve the problem.**

Show Your Work.

11. Daniel is setting up seats for the third grade play. There are 6 seats in each row. There are 54 seats in all. How many rows of seats are there?

12. Mrs. Martinez is sewing buttons on 4 costumes. Each costume has the same number of buttons. There are 32 buttons in all. How many buttons are on each costume?

13. The library received 63 new books. The librarian will put 7 books on each shelf. How many shelves are there?

14. There are 72 juice boxes for the class picnic. The juice boxes are in packs of 8. How many packs of juice boxes are there?

► Solve Unknown Start Problems

Solve each problem. Label your answers.

Show your work.

1. **Add To: Unknown Start** Greta puts some beads on a string. Then she puts on 70 more beads. Now there are 130 beads on the string. How many beads did she put on the string to start?

2. **Take From: Unknown Start** Greta puts some beads on a string. Seventy of the beads fell off the string. Sixty beads are still on the string. How many beads were there at first?

3. **Add To: Unknown Start** Patrick was carrying some booklets. His teacher asked him to carry 30 more booklets. Now he has 110 booklets. How many booklets did he start with?

4. **Take From: Unknown Start** Patricia was carrying some pencils. Her friend took 30 of them. Patricia has 80 pencils left. How many pencils was she carrying at first?



VOCABULARY

situation equation
solution equation

► Represent Unknown Start Problems with Math Tools

The equations and Math Mountains below show the word problems on page 281.

Add To: Unknown Start

situation equation:

now $\square + 70 = 130$
start more now

130
70
 \square

start more

solution equation:

$70 + \square = 130$
 $130 - 70 = \square$

Take From: Unknown Start

situation equation:

beads $\square - 70 = 60$
beads fell on
off

70 60
 \square

fell on
off

solution equation:

$60 + 70 = \square$

Add To: Unknown Start

situation equation:

now $\square + 30 = 110$
start more now

110
30
 \square

start more

solution equations:

$30 + \square = 110$
 $110 - 30 = \square$

Take From: Unknown Start

situation equation:

start $\square - 30 = 80$
start friend now

30 80
 \square

friend now

solution equation:

$80 + 30 = \square$

5. Write the unknown numbers in the boxes.

6. How are these math tools alike? How are they different?

► Write Situation and Solution Equations

**Write a situation equation and a solution equation.
Then solve the problem.**

7. Eight vans with the same number of students in each van took 40 students to the science center for a field trip. How many students were in each van?

Situation Equation: _____

Solution Equation: _____

8. Fiona made some barrettes. She put 9 beads on each barrette. If she used 63 beads, how many barrettes did she make?

Situation Equation: _____

Solution Equation: _____

9. The pet store has 81 birds. There are 9 birds in each cage. How many cages are there?

Situation Equation: _____

Solution Equation: _____

10. Enrique has 56 miniature cars. He put the same number of cars on 7 shelves in his room. How many cars are on each shelf?

Situation Equation: _____

Solution Equation: _____

► Write Situation and Solution Equations (continued)

Write a situation equation and a solution equation.
Then solve the problem.

11. A group of 48 students from 8 schools are competing in the science fair. Each school sends the same number of students. How many students are competing from each school?

Situation Equation: _____

Solution Equation: _____

12. An array on one wall in an art gallery has 27 photographs. Each row has 9 photographs. How many rows are there?

Situation Equation: _____

Solution Equation: _____

13. Jody bought 4 bags of lemons to make lemonade. The same number of lemons was in each bag. There were a total of 36 lemons. How many lemons were in each bag?

Situation Equation: _____

Solution Equation: _____

14. A hardware store sold a number of furnace filters. There were 6 filters in each box. If they sold 54 furnace filters, how many boxes of filters did the hardware store sell?

Situation Equation: _____

Solution Equation: _____

► Compare Numbers

Compare the numbers. Write $>$, $<$ or $=$ in each \bigcirc .

1. $34 \bigcirc 86$

2. $97 \bigcirc 67$

3. $653 \bigcirc 663$

4. $875 \bigcirc 587$

5. $752 \bigcirc 572$

6. $864 \bigcirc 846$

7. $1,932 \bigcirc 2,951$

8. $2,633 \bigcirc 2,487$

9. $3,478 \bigcirc 3,478$

10. $4,786 \bigcirc 4,876$

► Order Numbers

Write the numbers in order from greatest to least.

11. 69, 20, 81

12. 381, 124, 197

Write the numbers in order from least to greatest.

13. 2,245, 1,642, 787

14. 1,987, 1,898, 1,789


VOCABULARY
 comparison bars

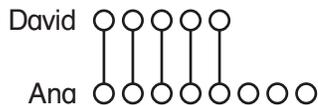
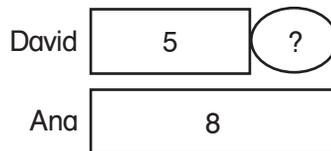
► Discuss Comparison Problems

Solve each problem. Label your answers.

David has 5 marbles. Ana has 8 marbles.

15. How many more marbles does Ana have than David? _____
16. How many fewer marbles does David have than Ana? _____

Here are two ways to represent the comparison situation.

Comparison Drawing

Comparison Bars


Claire has 8 marbles. Sasha has 15 marbles.

Show your work.

17. How many more marbles does Sasha have than Claire? _____
18. How many fewer marbles does Claire have than Sasha? _____

Rocky has 7 fishing lures. Megan has 12 fishing lures.

19. How many fewer fishing lures does Rocky have than Megan? _____

► **Comparison Problems With an Unknown Larger or Smaller Amount**

Solve each problem. Label your answers.

Show your work.

- 20. Unknown Larger Amount** Maribel has 18 stickers. Arnon has 13 more stickers than Maribel. How many stickers does Arnon have?

- 21. Unknown Smaller Amount** Arnon has 31 stickers. Maribel has 13 fewer stickers than Arnon. How many stickers does Maribel have?

- 22. Unknown Larger Amount** Ivan has 19 goldfish. Milo has 15 more goldfish than Ivan. How many goldfish does Milo have?

- 23. Unknown Smaller Amount** Milo has 34 goldfish. Ivan has 15 fewer goldfish than Milo. How many goldfish does Ivan have?

► **Use Comparison Bars to Represent an Unknown Amount**

Solve each problem. Label your answers.

Show your work.

24. Unknown Smaller Amount T.J. has 18 fewer miniature cars than Corey. Corey has 32 miniature cars. How many miniature cars does T.J. have?

25. Unknown Larger Amount Corey has 18 more miniature cars than T.J. T.J. has 14 miniature cars. How many miniature cars does Corey have?

26. Unknown Smaller Amount Grace has 19 fewer stuffed animals than Sophia. Sophia has 31 stuffed animals. How many stuffed animals does Grace have?

27. Unknown Larger Amount Sophia has 19 more stuffed animals than Grace. Grace has 12 stuffed animals. How many stuffed animals does Sophia have?

► What's the Error?

Dear Math Students,

As part of my math homework, I solved this problem:

Carlos has 19 fish. He has 14 fewer fish than Daniel.
How many fish does Daniel have?

Here is what I did: $19 - 14 = 5$

Daniel has 5 fish.

Carlos

Daniel

Is my answer right? If not,
please correct my work, and
tell me what I did wrong.

Your friend,
Puzzled Penguin



1. Write an answer to Puzzled Penguin.

► Solve Comparison Problems with Misleading Language

Solve each problem on a separate piece of paper.

- | | |
|--|---|
| <p>2. Unknown Smaller Amount Daniel has 23 fish. He has 15 more fish than Carlos. How many fish does Carlos have?</p> <hr/> | <p>3. Unknown Larger Amount Gina ran 12 laps. She ran 8 fewer laps than Bettina. How many laps did Bettina run?</p> <hr/> |
| <p>4. Unknown Smaller Amount Bettina ran 20 laps. She ran 8 more laps than Gina. How many laps did Gina run?</p> <hr/> | <p>5. Unknown Larger Amount Sara read 18 books this month. She read 13 fewer books than Lupe. How many books did Lupe read this month?</p> <hr/> |

► **Solve Comparison Problems Without the Words *More* or *Fewer***

Solve each problem. Label your answers.

Show your work.

6. The coach brought 18 hockey sticks to practice. There were 23 players at practice. How many players didn't get sticks?

7. At a meeting, 15 people had to stand because there were not enough chairs. There were 12 chairs. How many people came to the meeting?

8. Jess had 16 apples. After he gave one to each of his cousins, he had 13 apples left. How many cousins does Jess have?

9. At the park, 4 of the children could not swing because there were not enough swings. There were 20 children at the park. How many swings were on the swing set?

10. Maile took one step on each tile along the garden path. After she took 14 steps, there were 13 more tiles left to go. How many tiles were there along the path?

► Solve Problems with Extra Information

Read each problem. Cross out any extra information. Then solve.

1. Emma solved 9 math problems and answered 7 reading questions. Her sister solved 8 math problems. How many math problems did they solve in all?

2. Mark had 6 shirts and 5 pairs of pants. Today his aunt gave him 4 more shirts and another pair of pants. How many shirts does he have now?

3. A parking lot had 179 cars and 95 trucks. Then 85 cars left the lot. How many cars are in the parking lot now?

4. Laura had some roses in a vase. From her garden, she picked 7 more roses and 6 daisies. Now she has 12 roses in all. How many roses did she have at first?

5. Nikko had 245 pennies and 123 nickels. His brother gave him 89 more pennies and 25 more nickels. How many pennies does Nikko have now?

► **Solve Problems with Hidden Information**

Read each problem. Circle the hidden information. Then solve.

6. Samuel had 16 horseshoes in the shed yesterday. Today he put a new set of horseshoes on his horse Betsy. How many horseshoes are left in the shed?

7. Maya is going on a vacation with her family for a week and 3 days. How many days will she be on vacation?

8. Julie bought a dozen eggs at the market. She gave 3 of them to Serge. How many eggs does Julie have left?

9. Lisa had 3 quarters and 2 dimes. Then she found 3 nickels and 12 pennies. What is the value of the coins in cents she has now?

10. Marissa is moving away. She is going to move back in a year and 21 days. How many days will she be gone?

► Recognize Word Problems with Not Enough Information

Tell what information is needed to solve each problem.

11. Sara bought 8 bananas at the fruit market. She put them in a bowl with some oranges. How many pieces of fruit are in the bowl?

12. Rebecca did 112 dives in competition last summer. This summer, she did many more dives in competition. How many competition dives did she do in the two summers?

13. Meg bought 3 mystery books and put them on the shelf with her other mystery books. How many mystery books are now on the shelf?

14. Our school has 5 soccer balls, 6 basketballs, and 4 footballs. Today, some of the footballs were lost. How many balls does the school have now?

► **Solve Word Problems with Not Enough Information**

If more information is needed, rewrite the problem to include the necessary information. Then solve it.

15. Leah began fishing at 2:00 in the afternoon. She stopped at dinnertime. How many hours did Leah fish?

16. The train traveled 376 miles on Tuesday. It traveled even more miles on Wednesday. How many miles did the train travel on Tuesday and Wednesday?

17. The Kitchen Store sold 532 pans and 294 pots. Then some pans were returned. How many pans were not returned?

18. Julio and Scott played 6 card games and 4 computer games today. How many hours did they play games?

► Write First Step Questions

**Write the first step question and answer.
Then solve the problem.**

Show your work.

1. The orchard has 8 rows of apple trees. There are 7 rows with 6 apple trees and one row with 4 apple trees. How many apple trees are in the orchard?

2. Ms. Hayes bought 4 packs of pencils with 10 pencils in each pack. She divided the pencils evenly among her 5 children. How many pencils did each child get?

3. Kylen made 30 necklaces and gave 6 away. She put the rest in 4 boxes with an equal number in each box. How many necklaces were in each box?

4. Libby had 42 vacation pictures and 12 birthday pictures. She put an equal number of pictures on 9 pages in her scrapbook. How many pictures did Libby put on each page?

5. Mr. Cerda bought 9 boxes of tiles. Each box had 8 tiles. He used all but 5 of the tiles. How many tiles did Mr. Cerda use?

► Write First Step Questions (continued)

Write the first step question and answer.
Then solve the problem.

Show your work.

6. A bus has 10 seats that can each hold 2 passengers and another seat that can hold 3 passengers. How many passengers can be seated on the bus?

7. Dana made 6 fruit baskets. She put 4 apples, 2 pears, and 3 oranges in each basket. How many pieces of fruit did Dana use in all?

8. Cecilia ordered 5 pizzas for a group of friends. Each pizza had 8 slices. All but 3 slices were eaten. How many slices were eaten?

9. Randall has 122 coins in his collection. Fifty coins are quarters and the rest are nickels. If he fills 9 pages in a coin folder with the same number of nickels, how many nickels are on each page?

10. Lindsey made 6 bracelets. She used a total of 60 beads. Each bracelet has 6 beads that are silver and the rest are blue. How many beads on each bracelet are blue?

► What's the Error?

Dear Math Students, My teacher gave me this problem:

Luther had 11 sheets of colored paper. 6 were orange, and the rest were blue. Today he used 2 sheets of blue paper. How many sheets of blue paper does Luther have now?

Here is what I did: $11 - 6 = 5$
 Luther now has 5 blue sheets.

Is my answer correct? If not, please correct my work and tell me what I did wrong.

Your friend,
 Puzzled Penguin



1. Write an answer to Puzzled Penguin.

► Solve Two Step Word Problems

Solve each problem. Label your answers.

- | | |
|--|---|
| <ol style="list-style-type: none"> 2. The Hillside bus had 14 passengers. When it stopped, 5 people got off and 8 people got on. How many people are riding the Hillside bus now? | <ol style="list-style-type: none"> 3. There are 15 fish in a tank. 12 are goldfish, and the others are angelfish. How many more goldfish are there than angelfish? |
|--|---|

► Solve and Discuss

Solve each problem. Label your answers.

4. Sun Mi picked 14 apricots. Celia picked 5 fewer apricots than Sun Mi. How many apricots did Sun Mi and Celia pick altogether?

6. There are 5 mice, 3 gerbils, and some hamsters in a cage. Altogether there are 15 animals in the cage. How many hamsters are there?

8. Katie had 8 dimes and some nickels in her duck bank. She had 4 more nickels than dimes. She took out 5 nickels to buy a newspaper. How many nickels are in her duck bank now?

5. Annie took 8 photographs at home and 7 photographs at school. Her sister Amanda took 6 fewer photographs than Annie. How many photographs did Amanda take?

7. A new library opened on Saturday. The library lent out 234 books on Saturday. On Sunday, they lent out 138 books. That day, 78 books were returned. How many books were not returned?

9. Tony had 14 colored pencils. 9 of them needed sharpening, and the rest were sharp. Yesterday, his uncle gave him some new colored pencils. Now Tony has 12 sharp colored pencils. How many colored pencils did his uncle give him?

► Is the Answer Reasonable?

Use rounding or mental math to decide if the answer is reasonable. Write *yes* or *no*. Then write an equation and solve the problem to see if you were correct.

Show your work.

10. Chelsea's class collected cans of food for their local food pantry. They collected 27 cans on Monday and 78 cans on Tuesday. Then on Wednesday they collected 53 cans. How many cans did the class collect on those three days?

Answer: 158 cans

11. Barry strings beads. He had 54 beads on a string and he took off 29 beads. Then he took off 5 more. How many beads are on the string now?

Answer: 35 beads

12. Dena counted the books on three shelves of the classroom library. She counted 33 books on the top shelf, 52 books on the middle shelf, and 48 books on the bottom shelf. How many books are on the three shelves?

Answer: 163 books

13. Ms. Lance bought 6 packages of paper cups. Each package has 20 cups. She used 78 cups for a party. How many cups does Ms. Lance have left?

Answer: 58 cups

► Reasonable Answers

Use rounding or mental math to decide if the answer is reasonable. Write *yes* or *no*. Then write an equation and solve the problem to see if you were correct.

Show your work.

14. There were 83 students in a spelling contest. In the first round 9 students were eliminated. Then 29 students were eliminated during the second round. How many students were left for the third round?

Answer: 24 students

15. During one week Tina rode her bicycle 42 miles and Jim rode 9 fewer miles than Tina. How many miles did they ride altogether that week?

Answer: 75 miles

16. Rusty volunteers at her local animal shelter. It costs \$10 a day to care for a cat or dog in the shelter. The total cost to care for the animals one day was \$90. There were 5 dogs at the shelter and the rest were cats. How many cats were at the shelter that day?

Answer: 9 cats

17. Jake is saving money for a new bike that costs \$187. He saved \$55 one month and \$44 the next month. How much more money does Jake need to buy the bike?

Answer: \$88

► Equations and Two Step Word Problems

Write an equation and solve the problem.

Show your work.

1. Mrs. Delgado is baking pies and cakes for a school fundraiser. She bought 26 apples, 29 peaches, and a number of bananas at the Farmers' Market. She bought 66 pieces of fruit. How many bananas did she buy?

2. Abby bought 8 packages of stickers with the same number of stickers in each package. She gave 15 stickers to her sister. Now Abby has 49 stickers. How many stickers were in each package?

3. Taylor is reading a 340-page book. He read 174 pages of the book on Saturday and 120 pages on Sunday. How many pages does he have left to read?

4. Lauren had a piece of ribbon that was 36 inches long. She cut a number of 3-inch pieces. She has 15 inches of ribbon left. How many 3-inch pieces did she cut?

5. There are 47 students in the marching band. There are 5 students in the first row, and the rest are in equal rows of 6. How many students are in each of the 6 rows?

► Solve Two Step Word Problems

Write an equation and solve the problem.

Show your work.

6. Sara's mother baked 48 cookies. Sara gave a dozen cookies to her neighbor and divided the remaining cookies on plates of 9 cookies each. How many plates did she use?

7. Marissa is making floral bouquets. She bought 56 carnations, 73 chrysanthemums, and some roses. She bought 153 flowers in all. How many roses did she buy?

8. Thomas has 103 photos on his digital camera. He deletes 33 because they are out of focus. He wants to print the remaining photos and put an equal number on each page of an album that has 10 pages. How many photos will be on each page?

9. Leo bought 6 sets of books. Each set had the same number of books. He donated 11 books to the school library. Now he has 37 books left. How many books were in each set of books Leo bought?

10. Amber has 5 packages of chalk. Each package has 9 pieces of chalk. She gave a number of pieces of chalk to her brother. Amber has 37 pieces of chalk left. How many pieces did Amber give her brother?

► Write Two Step Equations

Write an equation and solve the problem.

Show your work.

1. Carrie sold 7 toys for 50¢ each and 1 toy for 75¢. How much money, in cents, did Carrie make?

2. Darin earns \$8 each week doing chores. He is saving his money to buy a game that costs \$49 and a cap that costs \$15. How many weeks will Darin need to save his money?

3. A dog trainer is working with 7 dogs. He rewards each dog with the same number of treats. He started with 35 treats and he has 7 left. How many treats did he give each dog?

4. Sheila has two dogs. One dog weighs 46 pounds and her other dog weighs 14 pounds more. How many pounds do the two dogs weigh altogether?

5. Eli has 36 stamps and his brother has 24 stamps. They put their stamps in the same book. They put the same number of stamps on each page. They used 10 pages. How many stamps are on each page?

► Write Two Step Equations (continued)

Write an equation and solve the problem.

Show your work.

6. There were 9 rows of chairs set up in the school gym. Each row had 20 chairs. After the students were seated, there were 12 empty chairs. How many chairs were filled?

7. Eric had 143 baseball cards. His uncle gave him a number more. Then Eric gave 26 cards to a friend. He has 184 cards now. How many cards did Eric's uncle give him?

8. Brandi had 8 equal rows of stickers. She bought 5 more and now she has 53 stickers. How many were in each row before she bought more?

9. Randall cut a board into two pieces. One piece has a length of 84 inches. The other piece is 24 inches shorter. How long was the board Randall cut?

10. A science poster shows 9 insects with 6 legs each and a spider with 8 legs. How many legs is that altogether?

► Math and News

Little League Baseball Championships: Wheaton Wolves Score Win

Wheaton Wolves win Little League World Series Championship. The chart shows some statistics from the six games the team played.

Wheaton Wolves Statistics	
Times at Bat	155
Hits	47
Base on Balls	25
Runs Scored	36
Strike Outs	36



Use the information in the table to write an equation and solve the problem.

- How many times at bat did players not strike out or get a base on balls?

- How many hits and base on balls did not result in a run?

- The Wheaton Wolves had 13 triple or double-base hits, 3 homeruns, and the rest were single-base hits. How many single-base hits did the team get?

► Sports News

Danielle plays on a third grade basketball team in a league. Her team made the news when they scored 47 points, 41 points, and 53 points in a three-game tournament.



Write a two step equation and solve the problem.

4. How many points did Danielle's team score altogether?

5. Describe a method you could use to decide if your answer to Problem 4 is reasonable.

6. Danielle's scorecard shows her statistics for the three games. Use the information in the table to write equations to find the unknown numbers. Then complete the table.

	Number of 1-pt Free Throws	Number of 2-pt Field Goals	Total Points
Game 1	5	7	
Game 2		6	18
Game 3	3		21

1. Mr. Taylor arranges some chairs in rows. He puts the same number of chairs in each of 7 rows and puts 7 chairs in the last row. He sets up 70 chairs. How many chairs does he put in each of the 7 equal rows?
 Choose the equation that can be used to solve the problem.

$(7 \times c) + 7 = 70$
$(70 \div 7) + 7 = c$
$(7 \times c) - 7 = 70$

I can use the equation

Solve the problem.

_____ chairs

2. Marisol picks 150 flowers. She picks 80 red flowers and the rest are yellow. She sells 45 yellow flowers. How many yellow flowers does she have now?
 For numbers 2a–2e, choose Yes or No to tell whether the equation can be used to find the number of yellow flowers Marisol has now.

- | | | |
|-------------------------|---------------------------|--------------------------|
| 2a. $150 - 80 - 45 = y$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 2b. $150 + 80 - 45 = y$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 2c. $150 + 80 + 45 = y$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 2d. $150 = 80 + 45 + y$ | <input type="radio"/> Yes | <input type="radio"/> No |
| 2e. $150 = 80 - 45 + y$ | <input type="radio"/> Yes | <input type="radio"/> No |



3. Mark makes 18 picture frames this month. He makes 7 fewer picture frames than Sara. How many picture frames does Sara make?

Draw comparison bars to represent the problem. Then solve.

_____ picture frames.

4. David and Marne pick cucumbers at a farm. David picks 93 cucumbers. How many cucumbers does Marne pick?

What information do you need to solve the problem?

- (A) how many more cucumbers David picks
- (B) how many fewer cucumbers Marne picks
- (C) how many cucumbers are at the farm
- (D) how many cucumbers David and Marne pick

Rewrite the problem to include the necessary information. Then solve it.



5. There are 240 boys and girls in a soccer league. There are 130 girls. How many boys are there?

Write an equation with a variable to represent the problem. Then draw a Math Mountain to solve the problem.

_____ boys

6. On Wednesday, Jonah sees 30 birds and 4 rabbits. Of the birds, 13 are robins and the rest are pigeons. On Thursday, he sees some more pigeons. He has now seen 21 pigeons. How many pigeons did he see on Thursday?

Part A

Write the information in the correct box.

30 birds 4 rabbits 13 robins 21 pigeons

Needed Information	Extra Information

Part B

Solve the problem. What strategy did you use? How did it help?



7. Susan buys 24 postcards. She sends 6 postcards to friends. She puts the rest in 3 folders, with an equal number in each folder. How many postcards are in each folder?

Write the first step question and answer. Then solve.

_____ postcards

8. Kato uses 56 photos to make online albums. He puts 7 photos in each album. How many albums does Kato make?

For numbers 8a–8d, select True or False if the equation can be used to solve the problem.

- 8a. $7 \times a = 56$ True False
 8b. $56 \div 7 = a$ True False
 8c. $7 \times 56 = a$ True False
 8d. $56 \div a = 7$ True False

9. Tara posts 35 flyers for the school carnival. Keisha posts 8 more flyers than Tara. How many flyers did Tara and Keisha post? Choose the number that completes the sentence.

Tara and Keisha post _____ flyers.

43
62
78

10. Jason packs 54 grapefruit in 9 boxes for shipping. He packs the same number of grapefruit in each box. How many grapefruit does Jason pack into each box?

Use the numbers and symbols to write a situation equation and a solution equation. Then solve.

g
9
54
×
÷
=

Situation Equation: _____

Solution Equation: _____

_____ grapefruit

11. Declan reads 19 books. He reads 13 fewer books than Ellie. How many books does Ellie read?

_____ books

12. Parker has 452 toy dinosaurs in his collection. His sister gives him 38 more toy dinosaurs. Then he sells some of them online. Parker now has 418 toy dinosaurs. How many did he sell?

Answer: 72 toy dinosaurs

Is the answer reasonable? Tell why or why not. Then write an equation and solve the problem.



13. Eva buys some items at the store and pays with pennies and nickels. Use the information in the table to write equations to find the unknown numbers. Then complete the table.

Pencil: _____

Eraser: _____

Clip: _____

	Number of Pennies	Number of Nickels	Total Cost
Pencil	6	8	¢
Eraser		4	24¢
Clip	2		37¢

14. Holly is going to the beach in 2 weeks and 4 days. Which equation can be used to find the number of days until Holly goes to the beach?

- Ⓐ $2 \times 7 + 4 = b$; $b = 18$ days
 Ⓑ $2 \times 5 + 4 = b$; $b = 14$ days
 Ⓒ $2 + 7 + 4 = b$; $b = 13$ days
 Ⓓ $2 \times 7 - 4 = b$; $b = 10$ days

15. Omar has 5 ties and Ryan has 12 ties. How many more ties does Ryan have than Omar?

Make a comparison drawing to represent the problem. Then solve.

_____ more ties