EUREKA MATH™

FROM THE NONPROFIT GREAT MINDS®

Solving Word Problems
Grades K-5

Word Problem Bank

May 2020

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RDW or Read, Draw, Write (an Equation and a Statement)

Mathematicians and teachers suggest a simple process applicable to all grades:

1. Read.
2. Draw and label.
3. Write an equation.
4. Write a word sentence (statement).

The more students participate in reasoning through problems with a systematic approach, the more they internalize those behaviors and thought processes.

- What do I see?
- Can I draw something?
- What conclusions can I make from my drawing?

Modeling with Interactive Questioning	Guided Practice	Independent Practice
The teacher models the whole process with interactive questioning, some choral response, and talk such as "What did Monique say, everyone?" After completing the problem, students might reflect with a partner on the steps they used to solve the problem. "Students, think back on what we did to solve this problem. What did we do first?" Students might then be given the same or a similar problem to solve for homework.	Each student has a copy of the question. Though guided by the teacher, they work independently at times and then come together again. Timing is important. Students might hear, "You have 2 minutes to do your drawing." Or, "Put your pencils down. Time to work together again." The Debrief might include selecting different student work to share.	Students are given a problem to solve and possibly a designated amount of time to solve it. The teacher circulates, supports, and thinks about which student work to show to support the mathematical objectives of the lesson. When sharing student work, students are encouraged to think about the work with questions such as, "What do you see that Jeremy did?" "What is the same about Jeremy's work and Sara's work?" "How did Jeremy show $\frac{3}{7}$ of the students?" "How did Sara show $\frac{3}{7}$ of the students?"

Note:

The following pages contain a bank of Problem Sets representing all of the problem types students will encounter across Grades K-5. Use them as needed to extend your learning from the session. You are not expected to print or complete every page in this document.

Section 1

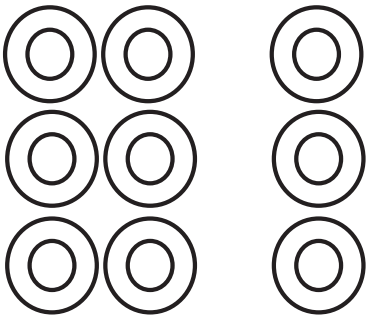
Addition and Subtraction Problems

Name _____ Date _____

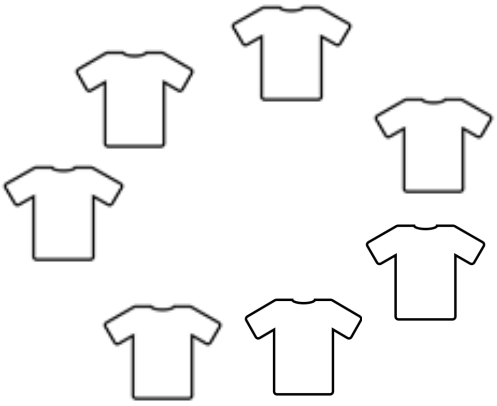
Listen to my stories. Color the pictures to show what is happening. Write how many in the box.

Bobby picked 4 red flowers. Then, he picked 2 purple flowers. How many flowers did Bobby pick?

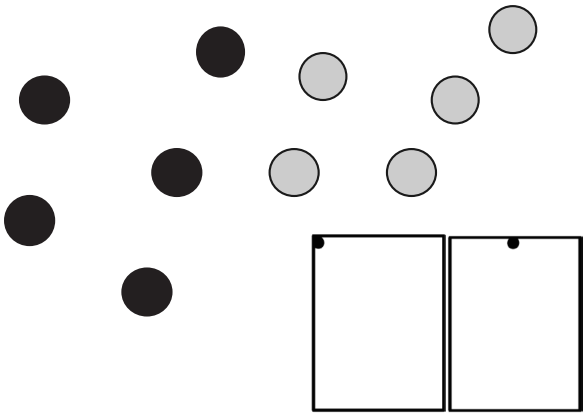
Janet went to the donut store. She bought 6 chocolate donuts and 3 strawberry donuts. How many donuts did she buy?



Some children were sitting in a circle. 4 of them were wearing green shirts. The rest were wearing yellow shirts. How many children were in the circle?

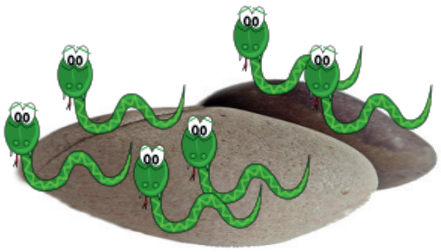


Jerry spilled his bag of marbles.
Circle the group of grey marbles.
Circle the group of black marbles.
How many marbles were spilled?



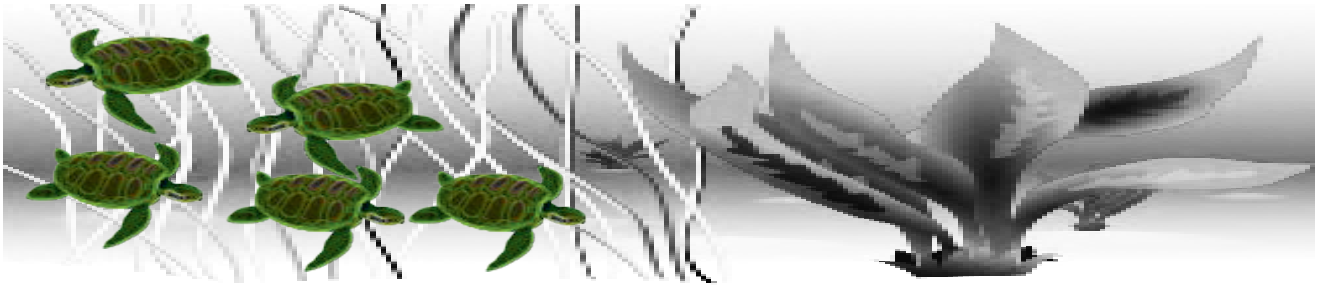
Name _____ Date _____

There are 4 snakes sitting on the rocks. 2 more snakes slither over. How many snakes are on the rocks now? Put a box around all the snakes, trace the mystery box, and write the answer inside it.



4 + 2 = ☐

There are 5 turtles swimming. Draw 2 more turtles that come to swim. How many turtles are swimming now? Draw a box around all the turtles, draw a mystery box, and write the answer.



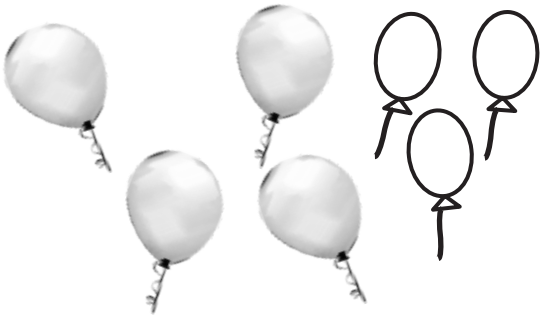
5 + 2 =

Today is your birthday! You have 7 presents. A friend brings another present. Draw the present. How many presents are there now? Draw a mystery box, and write the answer inside it.

7 + 1 =

Name _____ Date _____

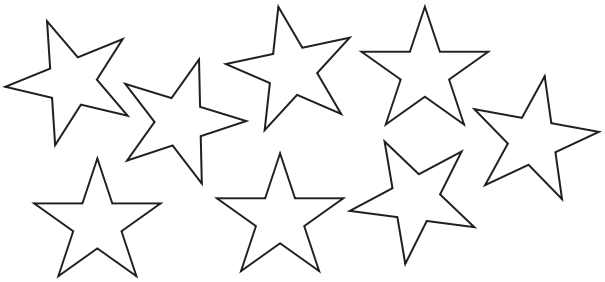
There are 4 green balloons and 3 orange balloons in the air. How many balloons are in the air? Color the balloons to match the story, and fill in the number sentences.



□ + □ = □

□ = □ + □

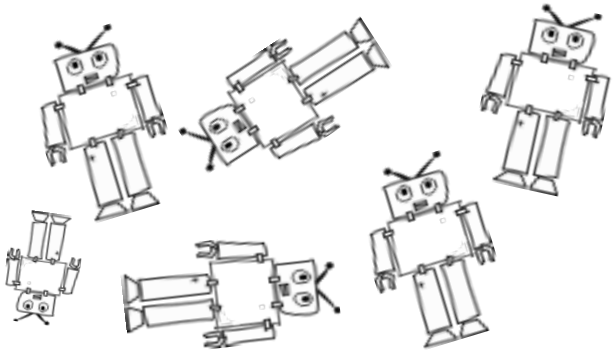
Dominic has 6 yellow star stickers and 2 blue star stickers. How many stickers does Dominic have? Color the stars to match the story, and fill in the number sentences.



□ + □ = □

□ = □ + □

There are 5 big robots and 1 little robot. How many robots are there? Fill in the number sentences.

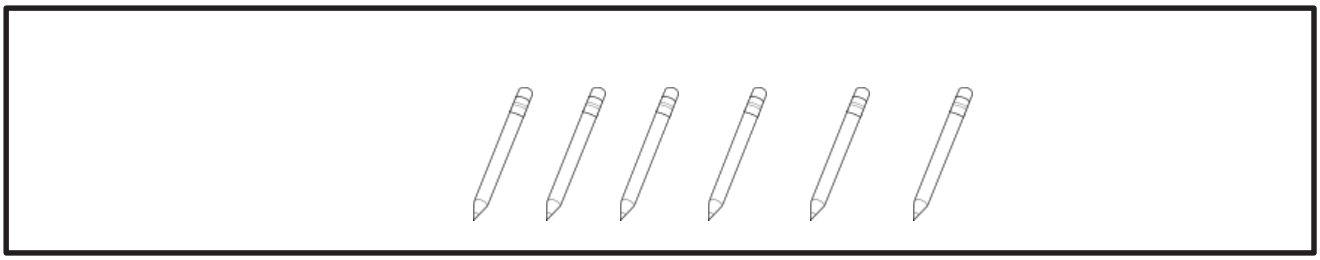


□ + □ = □

□ = □ + □

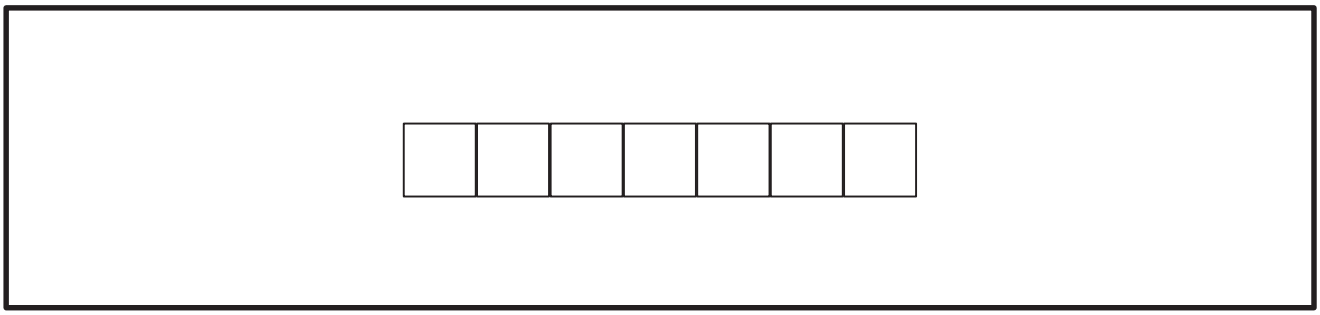
Name _____ Date _____

Devin has 6 Spiderman pencils. He put some in his desk and the rest in his pencil box. Write a number sentence to show how many pencils Devin might have in his desk and pencil box.



6 = ☐ + ☐

Shania made 7 necklaces. She wore some of the necklaces and put the rest in her jewelry box. Use the linking cubes to help you think about how many necklaces Shania might have on and how many are in her jewelry box. Then, complete the number sentences.



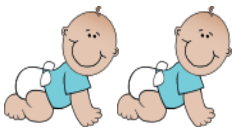
☐ + ☐ = ☐

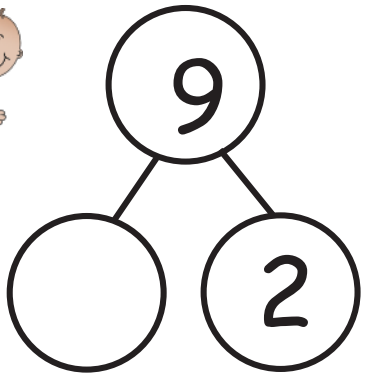
☐ = ☐ + ☐

Name _____ Date _____

Fill in the number sentences and number bonds.

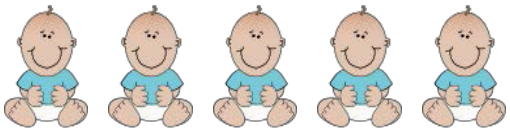
There are 9 babies playing. 2 crawl away. How many babies are left?





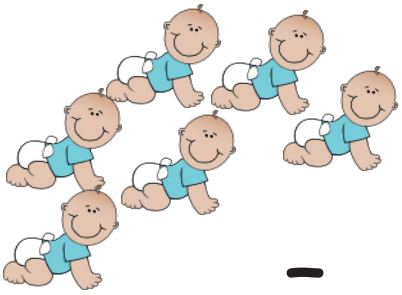
9 – 2 = ____

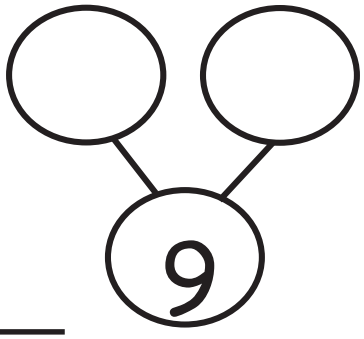
There are 10 babies playing. 1 crawls away. How many babies are left?



10 – ____ = ____

There are 9 babies playing. 6 crawl away. How many babies are left?





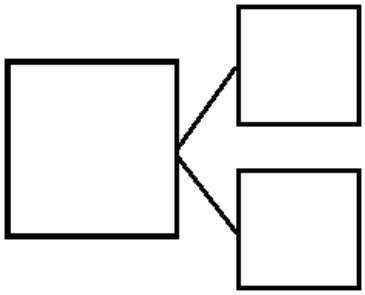
____ – ____ = ____

Name _____ Date _____

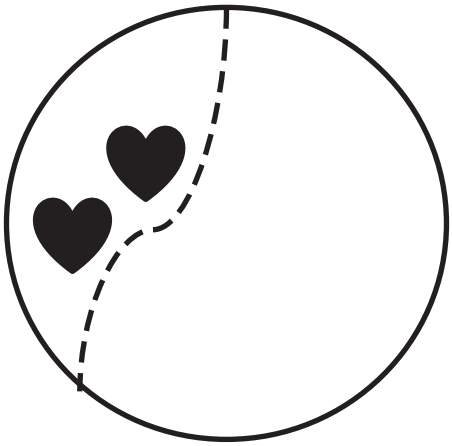
1. Jill was given a total of 5 flowers for her birthday. Draw more flowers in the vase to show Jill's birthday flowers.

How many flowers did you have to draw? ___ flowers

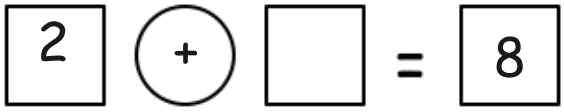
Write a number sentence and a number bond to match the story.

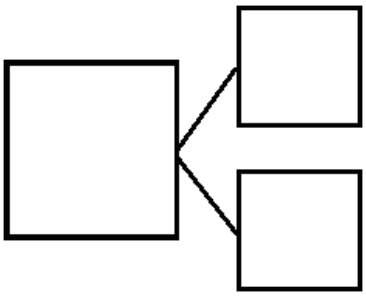


2. Kate and Nana were baking cookies. They made 2 heart cookies and then made some square cookies. They made 8 cookies altogether. How many square cookies did they make? Draw and count on to show the story.



Write a number sentence and a number bond to match the story.

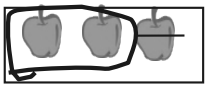




Name _____ Date _____

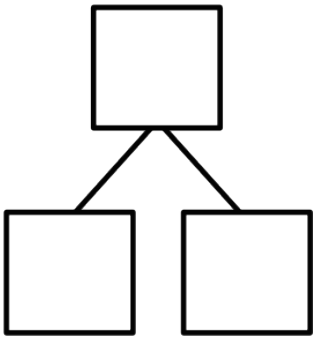
Make a math drawing, and circle the part you know. Cross out the unknown part.

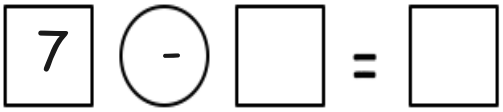
Complete the number sentence and number bond.



Sample: 3 – 1 = 2

1. Kate made 7 cookies. Bill ate some. Now, Kate has 5 cookies. How many cookies did Bill eat?





Bill ate _____ cookies.

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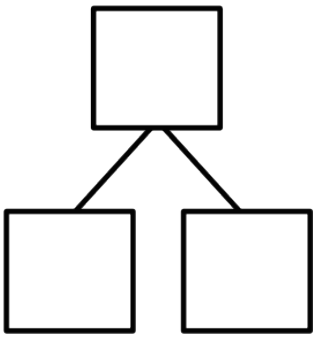
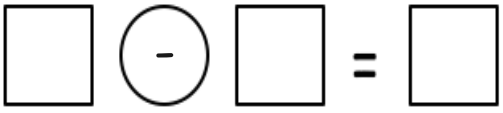
2. On Monday, Tim had 8 pencils. On Tuesday, he lost some pencils. On Wednesday, he has 4 pencils. How many pencils did Tim lose?



Tim lost _____ pencils.

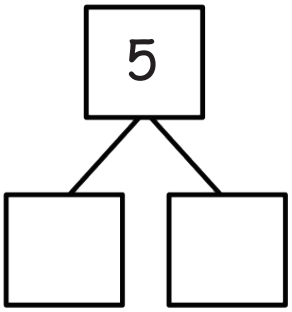


Name _____ Date _____

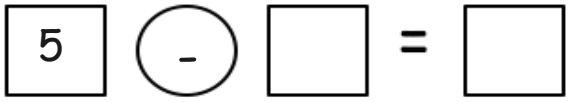
Solve. Use simple math drawings to show how to solve with addition and subtraction. Label the number bond.

1.

There are 5 apples.
Four are Sam's.
The rest are Jim's.
How many apples does Jim have?

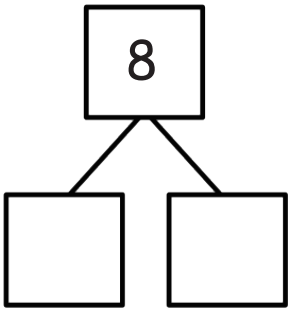


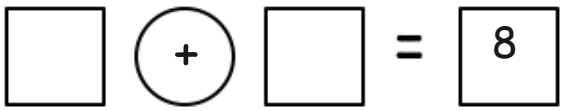
Jim has _____ apple.



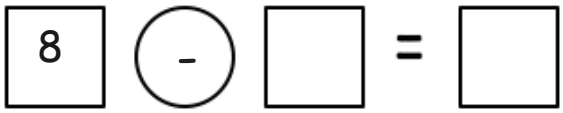
2.

There are 8 mushrooms. Five are black. The rest are white.
How many mushrooms are white?



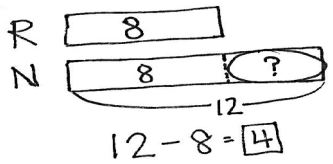


_____ mushrooms are white.



Name _____ Date _____

Read the word problem.
Draw a tape diagram or double tape diagram and label.
Write a number sentence and a statement that matches the story.

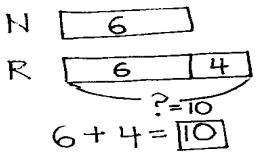


1. Peter has 3 goats living on his farm. Julio has 9 goats living on his farm. How many more goats does Julio have than Peter?

2. Willie picked 16 apples in the orchard. Emi picked 10 apples in the orchard. How many more apples did Willie pick than Emi?

Name _____ Date _____

Read the word problem.
Draw a tape diagram or double tape diagram and label.
Write a number sentence and a statement that matches the story.



1. Nikil baked 5 pies for the contest. Peter baked 3 more pies than Nikil. How many pies did Peter bake for the contest?

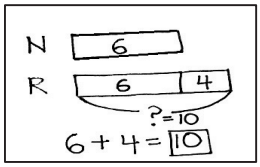
2. Emi planted 12 flowers. Rose planted 3 fewer flowers than Emi. How many flowers did Rose plant?

3. Ben scored 15 goals in the soccer game. Anton scored 11 goals. How many more goals did Ben score than Anton?

Name _____ Date _____

Read the word problem.
Draw a tape diagram or double tape diagram and label.
Write a number sentence and a statement that matches the story.

Sample Tape Diagram



1. Nine letters came in the mail on Monday. Some more letters were delivered on Tuesday. Then, there were 13 letters. How many letters were delivered on Tuesday?

2. Ben and Tamra found a total of 18 seeds in their watermelon slices. Ben found 7 seeds in his slice. How many seeds did Tamra find?

3. Some children were playing on the playground. Eight children came to join, and now there are 14 children. How many children were on the playground in the beginning?

Name _____ Date _____

Solve and show your strategy.

1. 39 books were on the top bookshelf. Marcy added 48 more books to the top shelf. How many books are on the top shelf now?

2. There are 53 regular pencils and some colored pencils in the bin. There are a total of 91 pencils in the bin. How many colored pencils are in the bin?

Name _____ Date _____

Solve the following word problems by drawing a tape diagram. Use any strategy you have learned to solve.

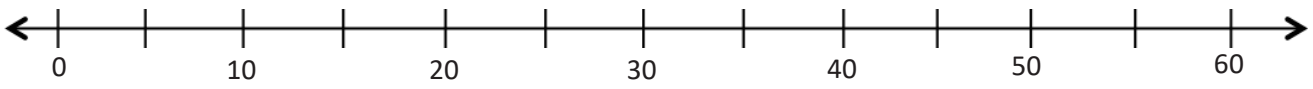
1. Mr. Roberts graded 57 tests on Friday and 43 tests on Saturday. How many tests did Mr. Roberts grade?

2. There are 54 women and 17 fewer men than women on a boat.
   a. How many men are on the boat?

   b. How many people are on the boat?

Name _____ Date _____

1. Cole read his book for 25 minutes yesterday and for 28 minutes today. How many minutes did Cole read altogether? Model the problem on the number line, and write an equation to solve.



Cole read for _____ minutes.

2. Tessa spends 34 minutes washing her dog. It takes her 12 minutes to shampoo and rinse and the rest of the time to get the dog in the bathtub! How many minutes does Tessa spend getting her dog in the bathtub? Draw a number line to model the problem, and write an equation to solve.

3. Tessa walks her dog for 47 minutes. Jeremiah walks his dog for 30 minutes. How many more minutes does Tessa walk her dog than Jeremiah?

Name _____ Date _____

1. a. Find the actual differences either on paper or using mental math. Round each total and part to the nearest hundred and find the estimated differences.

A

448 − 153 = _____
____ − ____ = _____

451 − 153 = _____
____ − ____ = _____

448 − 149 = _____
____ − ____ = _____

451 − 149 = _____
____ − ____ = _____

Circle the estimated differences that are the closest to the actual differences.

B

747 − 261 = _____
____ − ____ = _____

756 − 261 = _____
____ − ____ = _____

747 − 249 = _____
____ − ____ = _____

756 − 248 = _____
____ − ____ = _____

Circle the estimated differences that are the closest to the actual differences.

b. Look at the differences that gave the most precise estimates. Explain below what they have in common. You might use a number line to support your explanation.

Name _____ Date _____

Estimate first, and then solve each problem. Model the problem with a tape diagram. Explain if your answer is reasonable.

1. On Monday, a farmer sold 25,196 pounds of potatoes. On Tuesday, he sold 18,023 pounds. On Wednesday, he sold some more potatoes. In all, he sold 62,409 pounds of potatoes.

   a. About how many pounds of potatoes did the farmer sell on Wednesday? Estimate by rounding each value to the nearest thousand, and then compute.

   b. Find the precise number of pounds of potatoes sold on Wednesday.

   c. Is your precise answer reasonable? Compare your estimate from (a) to your answer from (b). Write a sentence to explain your reasoning.

Name _____ Date _____

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

1. Sean's school raised $32,587. Leslie's school raised $18,749. How much more money did Sean's school raise?

2. At a parade, 97,853 people sat in bleachers, and 388,547 people stood along the street. How many fewer people were in the bleachers than standing on the street?

Name _____ Date _____

Use the RDW process to solve.

1. Sue ran $\frac{9}{10}$ mile on Monday and $\frac{7}{10}$ mile on Tuesday. How many miles did Sue run in the 2 days?

2. Mr. Salazar cut his son's birthday cake into 8 equal pieces. Mr. Salazar, Mrs. Salazar, and the birthday boy each ate 1 piece of cake. What fraction of the cake was left?

3. Maria spent $\frac{4}{7}$ of her money on a book and saved the rest. What fraction of her money did Maria save?

Name _____ Date _____

Solve the word problems using the RDW strategy. Show all of your work.

1. George weeded $\frac{1}{5}$ of the garden, and Summer weeded some, too. When they were finished, $\frac{2}{3}$ of the garden still needed to be weeded. What fraction of the garden did Summer weed?

2. Jing spent $\frac{1}{3}$ of her money on a pack of pens, $\frac{1}{2}$ of her money on a pack of markers, and $\frac{1}{8}$ of her money on a pack of pencils. What fraction of her money is left?

Name _____ Date _____

Solve the word problems using the RDW strategy. Show all of your work.

1. In a race, the-second place finisher crossed the finish line $1\frac{1}{3}$ minutes after the winner. The third-place finisher was $1\frac{3}{4}$ minutes behind the second-place finisher. The third-place finisher took $34\frac{2}{3}$ minutes. How long did the winner take?

2. John used $1\frac{3}{4}$ kg of salt to melt the ice on his sidewalk. He then used another $3\frac{4}{5}$ kg on the driveway. If he originally bought 10 kg of salt, how much does he have left?

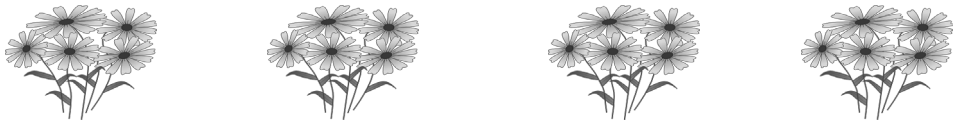
Section 2

Multiplication and Division Problems

Name _____ Date _____

Solve Problems 1–4 using the pictures provided for each problem.

1. There are 5 flowers in each bunch. How many flowers are in 4 bunches?



a. Number of groups: _____ Size of each group: _____

b. 4 × 5 = _____

c. There are _____ flowers altogether.

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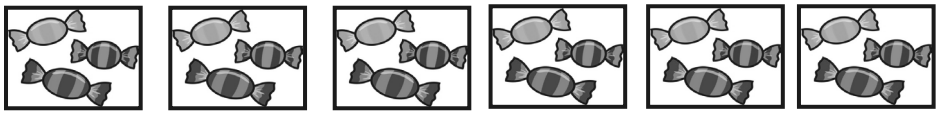
2. There are _____ candies in each box. How many candies are in 6 boxes?



a. Number of groups: _____ Size of each group: _____

b. 6 × _____ = _____

c. There are _____ candies altogether.

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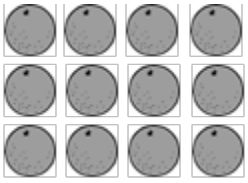
3. There are 4 oranges in each row. How many oranges are there in _____ rows?



a. Number of rows: _____ Size of each row: _____

b. _____ × 4 = _____

c. There are _____ oranges altogether.

Name _____ Date _____

1. Rick puts 15 tennis balls into cans. Each can holds 3 balls. Circle groups of 3 to show the balls in each can.

Rick needs _____ cans.

_____ × 3 = 15

15 ÷ 3 = _____

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2. Rick uses 15 tennis balls to make 5 equal groups. Draw to show how many tennis balls are in each group.

There are _____ tennis balls in each group.

5 × _____ = 15

15 ÷ 5 = _____

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3. Use an array to model Problem 1.

a. _____ × 3 = 15

15 ÷ 3 = _____

The number in the blanks represents

_____.

b. 5 × _____ = 15

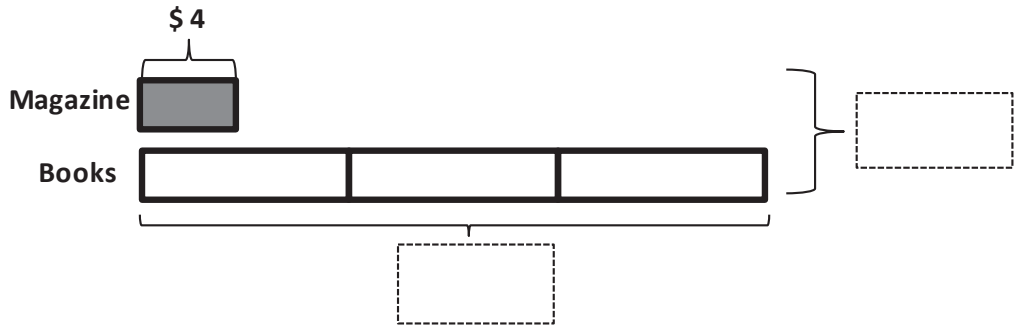
15 ÷ 5 = _____

The number in the blanks represents

_____.

Name _____ Date _____

1. Ted buys 3 books and a magazine at the book store. Each book costs $8. A magazine costs $4.



a. What is the total cost of the books?

b. How much does Ted spend altogether?

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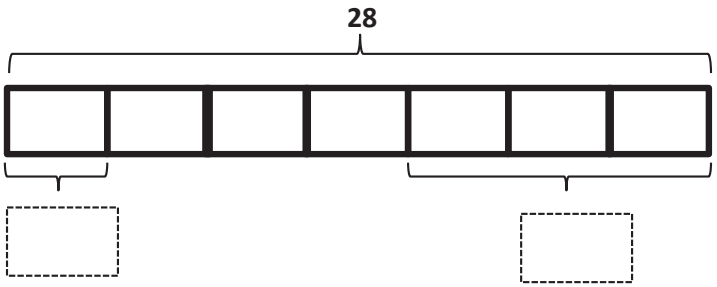
2. Seven children share 28 silly bands equally.



a. How many silly bands does each child get?

b. How many silly bands do 3 children get?

Name _____ Date _____

1. Ms. Santor divides 32 students into 8 equal groups for a field trip. Draw a tape diagram, and label the number of students in each group as *n*. Write an equation, and solve for *n*.

2. Tara buys 6 packs of printer paper. Each pack of paper costs $8. Draw a tape diagram, and label the total amount she spends as *m.* Write an equation, and solve for *m*.

3. Mr. Reed spends $24 on coffee beans. How many kilograms of coffee beans does he buy? Draw a tape diagram, and label the total amount of coffee beans he buys as *c*. Write an equation, and solve for *c*.

$8 for 1 kg

Name _____ Date _____

Use the RDW process for each problem. Explain why your answer is reasonable.

1. Rose has 6 pieces of yarn that are each 9 centimeters long. Sasha gives Rose a piece of yarn. Now, Rose has a total of 81 centimeters of yarn. What is the length of the yarn that Sasha gives Rose?

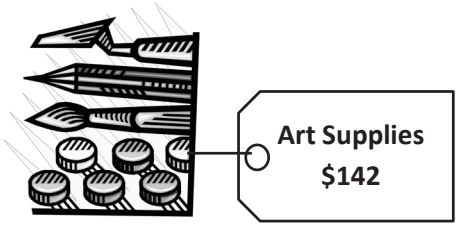
2. Julio spends 29 minutes doing his spelling homework. He then completes each math problem in 4 minutes. There are 7 math problems. How many minutes does Julio spend on his homework in all?

Name _____ Date _____

Use the RDW process to solve each problem. Use a letter to represent the unknown.

1. There are 60 seconds in 1 minute. Use a tape diagram to find the total number of seconds in 5 minutes and 45 seconds.

2. Lupe saves $30 each month for 4 months. Does she have enough money to buy the art supplies below? Explain why or why not.

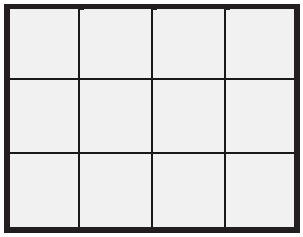


3. Brad receives 5 cents for each can or bottle he recycles. How many cents does Brad earn if he recycles 48 cans and 32 bottles?

Name _____ Date _____

1. Each side on a sticky note measures 9 centimeters. What is the area of the sticky note?

2. Stacy tiles the rectangle below using her square pattern blocks.



a. Find the area of Stacy's rectangle in square units. Then, draw and label a different rectangle with whole number side lengths that has the same area.

b. Can you draw another rectangle with different whole number side lengths and have the same area? Explain how you know.

Name _____ Date _____

1. A rectangular porch is 4 feet wide. It is 3 times as long as it is wide.

   a. Label the diagram with the dimensions of the porch.

   b. Find the perimeter of the porch.

2. A narrow rectangular banner is 5 inches wide. It is 6 times as long as it is wide.

   a. Draw a diagram of the banner, and label its dimensions.

   b. Find the perimeter and area of the banner.

Name _____ Date _____

Use the RDW process to solve the following problems.

Item	Cost
1 balloon	26¢
1 lollipop	14¢
1 bracelet	33¢

1. The table shows the cost of party favors. Each party guest receives a bag with 1 balloon, 1 lollipop, and 1 bracelet. What is the total cost for 9 guests?

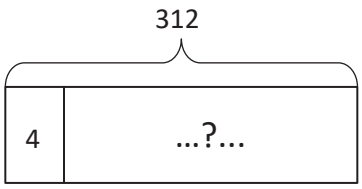
2. The Turner family uses 548 liters of water per day. The Hill family uses 3 times as much water per day. How much water does the Hill family use per week?

3. Jayden has 347 marbles. Elvis has 4 times as many as Jayden. Presley has 799 fewer than Elvis. How many marbles does Presley have?

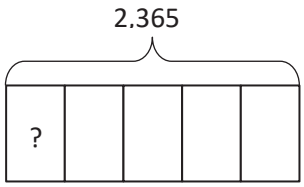
Name _____ Date _____

Draw a tape diagram and solve. The first two tape diagrams have been drawn for you. Identify if the group size or the number of groups is unknown.

1. Monique needs exactly 4 plates on each table for the banquet. If she has 312 plates, how many tables is she able to prepare?



2. 2,365 books were donated to an elementary school. If 5 classrooms shared the books equally, how many books did each class receive?



3. If 1,503 kilograms of rice was packed in sacks weighing 3 kilograms each, how many sacks were packed?

Name _____ Date _____

1. The chart to the right shows the height of some football players.

   a. Use the data to create a line plot at the bottom of this page and to answer the questions below.

   b. What is the difference in height of the tallest and shortest players?

   c. Player I and Player B have a combined height that is $1\frac{1}{8}$ feet taller than a school bus. What is the height of a school bus?

Player	Height (in feet)
A	$6\frac{1}{4}$
B	$5\frac{7}{8}$
C	$6\frac{1}{2}$
D	$6\frac{1}{4}$
E	$6\frac{2}{8}$
F	$5\frac{7}{8}$
G	$6\frac{1}{8}$
H	$6\frac{5}{8}$
I	$5\frac{6}{8}$
J	$6\frac{1}{8}$

Name _____ Date _____

Solve.

1. An office space in New York City measures 48 feet by 56 feet. If it sells for $565 per square foot, what is the total cost of the office space?

2. Gemma and Leah are both jewelry makers. Gemma made 106 beaded necklaces. Leah made 39 more necklaces than Gemma.

   a. Each necklace they make has exactly 104 beads on it. How many beads did both girls use altogether while making their necklaces?

   b. At a recent craft fair, Gemma sold each of her necklaces for $14. Leah sold each of her necklaces for $10 more. Who made more money at the craft fair? How much more?

Name _____ Date _____

Solve.

1. Liza's cat had six kittens! When Liza and her brother weighed all the kittens together, they weighed 4 pounds 2 ounces. Since all the kittens are about the same size, about how many ounces does each kitten weigh?

2. A container of oregano is 17 pounds heavier than a container of peppercorns. Their total weight is 253 pounds. The peppercorns will be sold in one-ounce bags. How many bags of peppercorns can be made?

Name _____ Date _____

Solve.

1. Lamar has 1,354.5 kilograms of potatoes to deliver equally to 18 stores. 12 of the stores are in the Bronx. How many kilograms of potatoes will be delivered to stores in the Bronx?

2. Valerie uses 12 fluid oz of detergent each week for her laundry. If there are 75 fluid oz of detergent in the bottle, in how many weeks will she need to buy a new bottle of detergent? Explain how you know.

Name _____ Date _____

1. A total of 2 yards of fabric is used to make 5 identical pillows. How much fabric is used for each pillow?

2. An ice cream shop uses 4 pints of ice cream to make 6 sundaes. How many pints of ice cream are used for each sundae?

3. An ice cream shop uses 6 bananas to make 4 identical sundaes. How many bananas are used in each sundae? Use a tape diagram to show your work.

Name _____ Date _____

Solve and show your thinking with a tape diagram.

1. Mrs. Onusko made 60 cookies for a bake sale. She sold $\frac{2}{3}$ of them and gave $\frac{3}{4}$ of the remaining cookies to the students working at the sale. How many cookies did she have left?

2. Joakim is icing 30 cupcakes. He spreads mint icing on $\frac{1}{5}$ of the cupcakes and chocolate on $\frac{1}{2}$ of the remaining cupcakes. The rest will get vanilla icing. How many cupcakes have vanilla icing?

3. The Booster Club sells 240 cheeseburgers. $\frac{1}{4}$ of the cheeseburgers had pickles, $\frac{1}{2}$ of the remaining burgers had onions, and the rest had tomato. How many cheeseburgers had tomato?

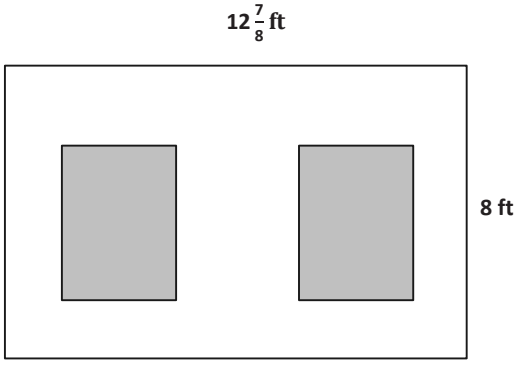
Name _____ Date _____

1. Mrs. Silverstein bought 3 mini cakes for a birthday party. She cuts each cake into quarters and plans to serve each guest 1 quarter of a cake. How many guests can she serve with all her cakes? Draw a picture to support your response.

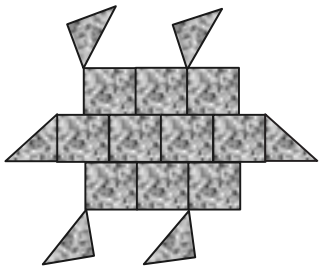
2. Mr. Pham has $\frac{1}{4}$ pan of lasagna left in the refrigerator. He wants to cut the lasagna into equal slices so he can have it for dinner for 3 nights. How much lasagna will he eat each night? Draw a picture to support your response.

Name _____ Date _____

1. George decided to paint a wall with two windows. Both windows are $3\frac{1}{2}$-ft by $4\frac{1}{2}$-ft rectangles. Find the area the paint needs to cover.



2. Joe uses square tiles, some of which he cuts in half, to make the figure below. If each square tile has a side length of $2\frac{1}{2}$ inches, what is the total area of the figure?



3. All-In-One Carpets is installing carpeting in three rooms. How many square feet of carpet are needed to carpet all three rooms?