



DynaMath

September 2013
TEACHER'S GUIDE

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SEPT	OCT	NOV/DEC	JAN	FEB	MAR	APR	MAY/JUNE
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COMING SOON! Registration will be required to access your online resources.
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School's back in session, and we have some great stories and online materials for you! In this issue, you'll celebrate the first birthday of the San Diego Zoo's newest baby panda, fly through the air with the Cirque du Soleil, see how artists created wax sculptures of the hit band One Direction, and more.

Don't forget to visit us online at www.scholastic.com/dynamath. But get ready because registration is coming. With your access code "factor," you won't miss out on our wonderful games, skills sheets, and videos.

Best wishes,
 Karina Hamalainen, Editor khamalainen@scholastic.com



PHOTO: KEN BOHN/SAN DIEGO ZOO

FEATURE VIDEO: Checking Up on Baby Panda

SKILLS AND STANDARDS

PAGE	SKILL & ARTICLE TITLE	COMMON CORE STATE STANDARD	ONLINE MATERIALS www.scholastic.com/dynamath
4	PROBLEM SOLVING Happy Birthday!	Operations and Algebraic Thinking: Write and solve equations.	Skills Sheet: More word problems into equations Video: Checking Up on Baby Panda
6	MULTIPLICATION Circus Time	Operations and Algebraic Thinking: Develop multiplication skills	Skills Sheet: More multiplication Video: Cirque du Soleil
8	PLACE VALUE Student Scientists	Number and Operations in Base Ten: Write standard, word, and expanded forms of numbers	Skills Sheet: More place value practice Game: Bird Count Quiz
10	GRAPHS Soda's Sweet Secret	Measurement and Data: Read and interpret information on a pictograph.	Skills Sheet: Make a bar graph Video: Soft Drinks: Then and Now
12	SUBTRACTION Submarine Makeover	Number and Operations in Base Ten: Subtract using a place-value-based method.	Skills Sheet, Video Lesson Practice Test, Common Core Connection Sheet
14	METRIC UNITS Measuring One Direction	Measurement and Data: Choose appropriate metric measuring tools and units.	Skills Sheet: Unit conversions



DIGITAL ISSUE KEY

- Video Player
- Game
- Skills Sheet

page 4 PROBLEM SOLVING

Happy Birthday!

CONTENT STANDARD

Operations and Algebraic Thinking
Number and Operations in Base Ten

MATHEMATICAL PRACTICES STANDARD

1. Make sense of problems and persevere in solving them.

OBJECTIVE

Students dissect word problems to find key information and decide the necessary operations to create an equation and solve it.

LESSON

1. Ask students how they determine the key information in a word problem. Allow time for students to share their strategies.
2. Open the digital edition to page 4, and read the article. Enlarge the “What to Do” box. Discuss the steps needed to turn word problems into equations. Ask: “Do you think following these steps would be a good way to solve a word problem? Why or why not?”
3. Have the students solve the first problem with a partner using their own strategy. Then have them repeat it using the strategy in the “What to Do” box.
4. Extend the lesson by watching the “Checking Up on Baby Panda” video that chronicles Xiao Liwu’s growth over his first several checkups with zoo veterinarians.

ONLINE ACTIVITY

www.scholastic.com/dynamath

Click on the orange “Skills Sheets” button.

For an activity in which students answer more word problems about pandas, download the “Panda Problems” basic skills sheet.



page 6 MULTIPLICATION

Circus Time

CONTENT STANDARD

Operations and Algebraic Thinking
Number and Operations in Base Ten

MATHEMATICAL PRACTICES STANDARD

4. Model with mathematics.

OBJECTIVE

Students develop their multiplicative reasoning skills through repeated addition and modeling.

LESSON

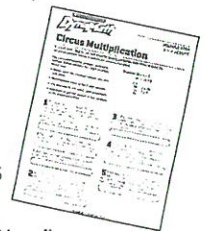
1. Before reading the article, ask the class if they have ever heard of Cirque du Soleil. Do they think it is like other circuses?
2. Open the digital edition and click the “Watch A Video” button to see Cirque du Soleil in action. Then read the article.
3. Read the first question and ask the students, “What does 4 times as high as the playground swing mean?” Allow students to share their thoughts.
4. Enlarge the “What to Do” box. Explain that 4×3 can also be represented by drawing 4 groups of 3 or 3 groups of 4.
5. Continue to have small groups discuss the following problems and the meaning of the phrases “as long as, as high as, and as many as.” Have a group leader volunteer to share how their group would solve the problems.

ONLINE ACTIVITY

www.scholastic.com/dynamath

Click on the orange “Skills Sheets” button.

For an activity in which students multiply 2-by-1 digit numbers, download the “Circus Multiplication” advanced skills sheet.






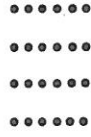


DIGITAL ISSUE KEY



NAME _____

Problem of the Day

<p>DAY 1 Jake earned \$5 a day every day in August for walking his neighbor's dog. How much money did Jake earn in total?</p>	<p>DAY 2 Circle the number hidden in the word sentence.</p>	<p>DAY 3 $8 + 8 + 8 + 8 + 8 + 8 = 8 \times \underline{\quad}$</p>	<p>DAY 4 Draw a line through this square to make 2 triangles.</p> 	<p>DAY 5 Kevin has 8 dimes, 2 nickels, and 10 pennies. How much more money does he need to have a total of \$1?</p>
<p>DAY 6 Name the 3-digit number: <input checked="" type="checkbox"/> The sum of the digits is 12. <input checked="" type="checkbox"/> None of the digits is 0. <input checked="" type="checkbox"/> The tens digit is 8. <input checked="" type="checkbox"/> The number is even.</p>	<p>DAY 7 Dan has 12 comic books. Cory has 14 more comic books than Dan. Ella has 2 more comic books than Cory. How many comic books does Ella have?</p>	<p>DAY 8 If each  = 3 boxes, how many boxes are represented below?   </p>	<p>DAY 9 Fill in the missing digit: $323 + 4\underline{\quad}1 = 804$</p>	<p>DAY 10 There are 12 inches in 1 foot. How many inches are there in 6 feet?</p>
<p>DAY 11 Circle the three numbers listed below that have a sum of 76. 40 24 14 54 12 26</p>	<p>DAY 12 Write a multiplication problem to find the number of dots below. Solve it. </p>	<p>DAY 13 What number is 3 more than $54 - 25$?</p>	<p>DAY 14 Anya spent \$2.50 buying 2 pencils and 2 notebooks. Each pencil cost 50¢. How much did each notebook cost?</p>	<p>DAY 15 Write any 5-digit number with 9 in the thousands place and 2 in the hundreds place.</p>
<p>DAY 16 Circle the two numbers hidden in this sentence: "The height of the giant was even taller than we thought."</p>	<p>DAY 17 Fill in the next three numbers in the pattern: 1, 5, 9, 13, 17, 21, _____, _____</p>	<p>DAY 18 If the number 9 is written on each side of a cube, what is the sum of all the 9's on written on the cube?</p>	<p>DAY 19 Name the 2-digit number: <input checked="" type="checkbox"/> The product of the digits is 6. <input checked="" type="checkbox"/> The number is odd. <input checked="" type="checkbox"/> None of the digits is 3.</p>	<p>DAY 20 Write the following number in standard form: $70,000 + 8,000 + 400 + 1$</p>

Practice Test: Subtraction

Test your skills related to the math from the story "Submarine Makeover"

- 1.** $250 - 130 =$
Ⓐ 20 Ⓒ 380
Ⓑ 150 Ⓓ 120

- 2.** $66 - 27 =$
Ⓐ 39 Ⓒ 46
Ⓑ 31 Ⓓ 33

- 3.** $451 - 380 =$
Ⓐ 151 Ⓒ 71
Ⓑ 61 Ⓓ 171

- 4.** $1,600 - 930 =$
Ⓐ 730 Ⓒ 700
Ⓑ 7,000 Ⓓ 670

- 5.** $4,300 - 1,500 =$
Ⓐ 1,500 Ⓒ 2,800
Ⓑ 2,500 Ⓓ 3,000

- 6.** $1,700 - 1,490 =$

- 7.** $850 - 66 =$

- 8.** $7,200 - 4,510 =$

- 9.** $42,000 - 34,302 =$

- 10.** $92,415 - 79,857 =$

ANSWER KEY


For answers to the student edition, see page T8.

PAGE T5: PROBLEM OF THE DAY

DAY 1: \$155

DAY 2: sentence

DAY 3: 6

DAY 4: 

DAY 5: Nothing.
Kevin already has exactly \$1.

DAY 6: 282

DAY 7: 28 comic books

DAY 8: 15 boxes

DAY 9: 8

DAY 10: 72 inches

DAY 11: 40, 24, and 12

DAY 12: $6 \times 4 = 24$ or $4 \times 6 = 24$

DAY 13: 32

DAY 14: 75¢

DAY 15: $x9,2xx$. (The x's can be any number.)

DAY 16: The height of the giant was even taller than we thought.

DAY 17: 25, 29, 33

DAY 18: 54

DAY 19: 61

DAY 20: 78,401

PAGE T6: PRACTICE TEST

1. D

2. A

3. C

4. D

5. C

6. 210

7. 784

8. 2,690

9. 7,698

10. 12,558

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ANSWER KEY

COVER: Newest Addition at the Zoo

There are 12 giant pandas in U.S. zoos.

PAGE 2: Numbers in the News

Disappearing Butterflies?: 45 acres

Hot Off the Press: 3,600,000,000 bills

Harry's New Look: 1998

PAGE 4: Happy Birthday!

1a. How many pounds of bamboo the pandas ate that day

1b. subtraction

1c. $40 - 7 = 33$ pounds

2. $2 \times 3 = 6$ cubs

3. $227 - 64 = 163$ pounds

4. $36 \div 3 = 12$ pounds per day

5a. $14 + 3 = 17$ pounds

5b. Please accept all reasonable answers. Here is one option: At his January checkup, Xiao Liwu weighed 17 pounds. In December, he was 3 pounds lighter. How much did he weigh in December?

PAGE 6: Circus Time

1a.



1b. $8 \times 4 = 32$ feet

3. 48 feet

2a. 15 feet

4. 16 feet

2b. 25 feet

5. 20 rope-jumpers

PAGE 8: Student Scientists

1. 22,238

$(20,000 + 2,000 + 200 + 30 + 8)$

2. One million, two hundred thousand

$(1,000,000 + 200,000)$

3. Forty-eight thousand, nine hundred thirty-two

$(40,000 + 8,000 + 900 + 30 + 2)$

4. Twelve thousand, six hundred fifty-three

$(10,000 + 2,000 + 600 + 50 + 3)$

5. 19,910

$(10,000 + 9,000 + 900 + 10)$

6. See above for each number's expanded form.

PAGE 10: Soda's Sweet Secret

1a. 4 grams

3a. apple juice

1b. 2 grams

3b. sports drink

2a. 26 grams

4. 16 grams

2b. 12 grams

5. Please accept all reasonable answers. For example: Milk and 100% fruit juices are healthier because they contain nutrients, vitamins, and minerals, but sugary drinks don't.

PAGE 12: Submarine Makeover

1a. $171 - 100 = 71$

1b. $71 - 40 = 31$

1c. $31 - 4 = 27$ cubic feet

2. 8,000 pounds

3. 5,670 square inches

4. 6,562 feet

5. 14,470 feet deeper

PAGE 14: Measuring One Direction

1a. measuring tape

3b. A

1b. C

4a. B

2. meters

4b. C

3a. scale

5. Please accept all reasonable answers. For example: It's easier to measure along the edge of or around an object with a measuring tape. But calipers measure the distance across irregular objects.

PAGE 16: The Puzzle Page

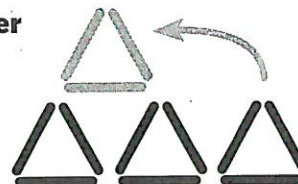
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1. D **2.** B **3.** A **4.** B **5.** A

Math Bloopers

The sum of $6 + 7$ is 13, but Libby forgot to add an extra 10 to the tens place in her answer. She has 63 cupcakes in total.

Brainteaser



Note: The 5th triangle is formed by the smaller triangles.



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