

# Numbers in the News

## Real-Life Superhero

**?** Jordan Reeves is the star of the show's first episode. She invented an artificial arm that shoots glitter. An early version carried 4 glitter tubes. If one tube was empty, write a fraction for the number of full tubes in the set.

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## All-Women Space Walk

**?** Christina Koch spent 328 days in space. The previous record, set by Peggy Whitson, was 288 days. How much longer was Koch's record spaceflight?

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## World's Lightest Dessert

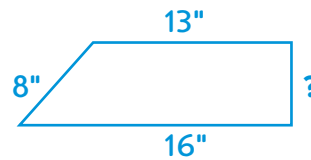
**?** The airy meringue weighs 1 gram. Which of the following objects would weigh closest to 1 gram: a large paperclip, a stapler, or a dictionary?

## Student Boatbuilders

**1.** Students cut the floor of their boat, called the hull bottom, from a sheet of plywood that is 69" (inches) long and 42" wide. What is the perimeter of the sheet before it is cut?



**3.** On an Opti, the post that the sails attach to is called the mast. Students cut out pieces of wood for a mast thwart, a structure that supports the mast. One half of the mast thwart is roughly this shape:



The perimeter of the shape is 42". What is the length of the missing side?

**2.** The back of an Opti is cut from a sheet of plywood that is 48 inches long and 16 inches wide. What is the perimeter of the sheet before it is cut?



**4.** Students start to build their Opti with a plywood sheet that is 96" long. Its perimeter is 288". What is the width of the sheet?

# The Great Gorilla Count

**1A.** In 1981, researchers counted only 242 mountain gorillas in an area called the Virunga Massif. In 1986, they counted 37 more than that. How many gorillas were there in 1986? Fill in the chart below.

KNOWN VALUES	
UNKNOWN VALUE	

**1B.** Which equation shows how many gorillas there were in 1986?

- Ⓐ  $242 - 37 = ?$                       Ⓒ  $37 - ? = 242$   
 Ⓑ  $242 + 37 = ?$                       Ⓓ  $37 \times ? = 242$

**2A.** By 1989, there were 309 gorillas in the Virunga Massif. That's 50 fewer than scientists counted in 2000. How many gorillas were there in 2000? Write an equation using the variable  $g$ .

**2B.** Solve your equation from part A. What does your answer represent?

**3A.** In 2003, researchers counted 360 gorillas in the Virunga Massif. In 2010, they counted 464. By how much did the population grow between 2003 and 2010? Write and solve an equation using the variable  $p$ .

**3B.** In 2016, Eckardt's team counted 604 gorillas. Adjust your equation from part A to find how many more gorillas there were in 2016 than in 2003.

**4.** In addition to the 604 in the Virunga Massif, 400 other mountain gorillas live in a national park in Uganda. Write an equation using the variable  $t$  to find the total population.

## Cuddly Cafés

**1.** It costs \$16.18 in U.S. dollars per person to visit a cat café in Singapore for 2 hours. How much would the visit cost a family of 3?

**2.** At the snake café at the Tokyo Snake Center in Japan, visitors can pay an extra fee to touch and hold the snakes. It costs \$5.07 in U.S. dollars per person to hold 2 snakes. It costs twice as much to hold 4 snakes. How much does it cost to hold 4 snakes?

**3.** It costs \$16.55 in U.S. dollars for a 3-hour visit with more than 20 Siberian huskies at TrueLove at Neverland in Bangkok, Thailand. If you visited 5 times, each time for 3 hours, how much would you spend?

**4A.** Visitors to Lady Dinah's Cat Emporium can buy a pot of tea for 1 person for 3.23 U.S. dollars. One U.S. dollar equals 0.77 British pounds. How much would a pot of tea for 1 person cost in British pounds?

**4B.** A teapot for 2 costs \$3.87. How much would it cost in British pounds?

**4C.** Is it a better deal to order a teapot for 2 or 2 teapots for 1? Explain.

# The Case of the Missing Dog

1.  $\$40 + \$20 =$

5. How did Caleb crack the case? Can you figure out what really happened?

2.  $\$100 - \$60 =$

3.  $\$75 + \$9 =$

4.  $\$33 - \$18 =$

# Butterfly Biologist

**1.** Explain what shapes you chose for your butterfly and why. Were there other shapes you wished you could use?

**2.** Could the butterfly have a horizontal line of symmetry? How do you know your butterfly pattern is symmetrical?



NAME \_\_\_\_\_

# Celebrating Dr. Seuss

Think about the pictures and facts on page 16.

**Which number most surprised you? Why?** \_\_\_\_\_

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**What do you wonder about in what you've seen and read?** \_\_\_\_\_

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**Write a word problem using information on page 16. Then challenge a partner to solve it!**

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