

SCHOLASTIC



TEACHER'S GUIDE  
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SUPPLEMENT TO SCHOLASTIC MATH



CONTAINS A  
MINIMUM OF 10%  
POST CONSUMER FIBER

ISSUE DATES	9/1	9/15	10/6	10/27	11/17	12/8	1/12	2/2	3/2	3/23	4/13	5/4
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Registration is now required for access to your online resources.

[www.scholastic.com/math](http://www.scholastic.com/math) YOUR ACCESS CODE: **numerator**

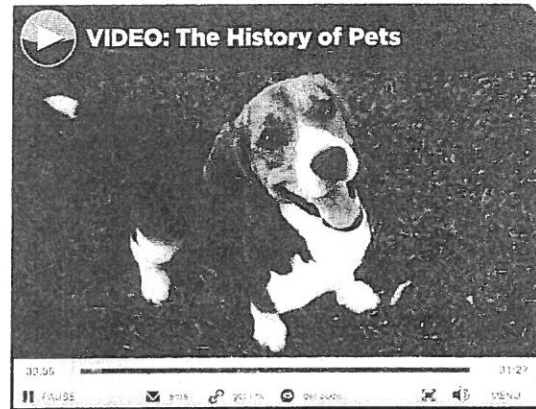
Dear Teacher,

Are you up for a walk on the wild side? With "Wild Pets" on page 8, you will learn more about people who keep lions, tigers, and bears as private pets. And if that wasn't enough to sate your exotic appetites, check out our "History of Pets" video at [www.scholastic.com/math](http://www.scholastic.com/math) to find out more about how the relationship between humans and their pets has evolved through the years.

If you haven't already, you'll need to register on our website, using the code "numerator," for full access to skill sheets, videos, games, and more. While you're online you should check out our NEW suite of Common Core Skills Sheets for each article, which are designed to help extend your lesson.

Best wishes,  
The Editors

[mathmag@scholastic.com](mailto:mathmag@scholastic.com)



## SKILLS GUIDE

PAGE	SKILL & ARTICLE TITLE	COMMON CORE STATE STANDARDS	ONLINE RESOURCES <a href="http://www.scholastic.com/math">www.scholastic.com/math</a>
4	<b>Algebraic Expressions</b> VERTICAL FORCES	<b>Expressions &amp; Equations:</b> Write, read, and evaluate expressions in which letters stand for numbers.	<ul style="list-style-type: none"> <li>Download a differentiated Common Core skills sheet, plus 5 More Questions.</li> <li>Watch an instructional video.</li> </ul>
6	<b>Scientific Notation</b> PLANET HUNTERS	<b>Expressions &amp; Equations:</b> Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used.	<ul style="list-style-type: none"> <li>Download a differentiated Common Core skills sheet, plus 5 More Questions.</li> <li>Watch a background video.</li> </ul>
8	<b>Percents</b> WILD PETS	<b>Ratios &amp; Proportional Relationships:</b> Find a percent of a quantity as a rate per 100.	<ul style="list-style-type: none"> <li>Download a differentiated Common Core skills sheet, plus 5 More Questions.</li> </ul>
12	<b>Statistics</b> HOT STUFF!	<b>Statistics &amp; Probability:</b> Summarize numerical data sets in relation to their context.	<ul style="list-style-type: none"> <li>Enlarge pop-up charts and graphs.</li> <li>Get additional information from Web links.</li> </ul>
14	<b>Fractions to Decimals</b> VISION QUEST	<b>The Number System:</b> Convert a rational number to a decimal using long division.	<ul style="list-style-type: none"> <li>Download a differentiated Common Core skills sheet, plus 5 More Questions.</li> </ul>
16	<b>Absolute Value</b> GIRL MEETS WORLD	<b>The Number System:</b> Understand the absolute value of a rational number as its distance from 0 on the number line.	<ul style="list-style-type: none"> <li>Play a game.</li> </ul>



# Problem of the Day

NAME \_\_\_\_\_

TRY ONE OF THESE QUICK EXERCISES EACH DAY AS A FAST, FUN WAY TO START YOUR MATH LESSON!

<p><b>DAY 1</b></p> <p>The distance from Earth to the sun is about 93,000,000 miles. Write this number in scientific notation.</p>	<p><b>DAY 2</b></p> <p>In an algebraic expression, what word describes a single number, a single variable, or a number and variable multiplied together?</p> <p>A. term    C. coefficient B. factor    D. operator</p>	<p><b>DAY 3</b></p> <p>What percent of 350 equals 40? (Round answer to the nearest whole number.)</p>	<p><b>DAY 4</b></p> <p>What is the least common multiple for the numbers 4 and 5?</p>	<p><b>DAY 5</b></p> <p>The world's speed-climbing record holder completed a 10-meter ascent in 3.95 seconds. At what rate did the climber ascend per second?</p>
<p><b>DAY 6</b></p> <p>A \$120 bicycle is marked down 15 percent. Write a proportional relationship to determine the discount.</p>	<p><b>DAY 7</b></p> <p>Use long division to convert the fraction <math>\frac{21}{46}</math> to a decimal. (Round answer to the nearest hundredth.)</p>	<p><b>DAY 8</b></p> <p>Which of the following 3-D shapes creates a triangle when sliced in half vertically?</p> <p>A. cone    B. cylinder C. rectangular pyramid D. cube</p>	<p><b>DAY 9</b></p> <p>Earth has a diameter of about 8,000 miles. The exoplanet Kepler-11d's diameter is about 3.12 times that of Earth. What is its diameter in miles?</p>	<p><b>DAY 10</b></p> <p>Choose a symbol (<math>=</math>, <math>&gt;</math>, or <math>&lt;</math>) to complete the inequality when <math>x &gt; 0</math>:</p> $x + 6 \quad \frac{3}{5}x - 2$
<p><b>DAY 11</b></p> <p>Each year, the Tabasco company sells 16,725,070 bottles of hot sauce, bringing in a profit of \$40,572,270. What's the average price per bottle of Tabasco?</p>	<p><b>DAY 12</b></p> <p>What number divided by any other number always equals zero?</p>	<p><b>DAY 13</b></p> <p>A line divides another line to form two adjacent angles. One measures 62 degrees. What does the other angle measure?</p>	<p><b>DAY 14</b></p> <p>Find the slope of this line:</p> $y = \frac{1}{2}x + 8$	<p><b>DAY 15</b></p> <p>Simplify <math>\sqrt{48}</math> by finding the largest perfect square factor.</p>
<p><b>DAY 16</b></p> <p>A smartphone app costs \$1.99. In one month, the company that designed the app makes \$398 in sales. Write an equation to calculate how many people bought the app.</p>	<p><b>DAY 17</b></p> <p>Over the past five years, the number of exotic animal escapes in the U.S. have been: 62, 120, 89, 28, and 56. What has been the average number of escapes per year?</p>	<p><b>DAY 18</b></p> <p>Exoplanet Kepler-22b has a radius of about 9,300 miles. What is its circumference? (Hint: <math>C = 2\pi r</math>)</p>	<p><b>DAY 19</b></p> <p>Which of the following fractions are equivalent?</p> $\frac{2}{8}, \frac{3}{4}, \frac{9}{15}, \frac{4}{16}, \frac{12}{32}$	<p><b>DAY 20</b></p> <p>What is another way to write this number: <math>3^2</math>?</p>

Answers on T12

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## PAGES 2-3

### NUMBERS IN THE NEWS

#### TREE THIEVES

About 65 meters (please accept all reasonable answers)

#### PINT-SIZED PLAYER

5.23 points per game

#### OPERA HOUSE AGLOW

24 times

#### DO THE MATH!

249

## PAGE 4

### VERTICAL FORCES

1a.  $\$100s + \$125r + \$65h + \$20b$

+  $\$15c$  (variables may vary)

1b.  $\$480$

2a.  $\frac{H}{L}$  or  $H \div L$

2b.  $\frac{1}{2}$

3a.  $0.2x$

3b. 8 feet

4.  $x + x(0.4) = 140$  feet

## PAGE 6

### PLANET HUNTERS

1.  $1.42 \times 10^7$  meters

2.  $7 \times 10^{-3}$  Jupiter masses

3.  $3.87 \times 10^6$  meters

4.  $3.1 \times 10^{-5} < m < 1.8 \times 10^{-2}$

5. Kepler-30c, Kepler-30d, Kepler-30b

## PAGE 8

### WILD PETS

1a.  $\frac{7}{50} = \frac{x}{100}$

1b. 2

1c. 14%

2. 42%

3. 18%

4. 12%

5. 40%

6. 12%

7. 4%

8. 50%

9. 37.5%

10. 12.5%. Add the answers from questions 8 and 9 and subtract the total from 100; or complete the ratio  $\frac{1}{8} = \frac{x}{100}$  per instructions.

## PAGE 12

### HOT STUFF!

1. C

2. A

3. D

4. A

5. C

6. B

7. Habanero pepper

8. 6,400 times spicier

9. 132,000 tonnes

10. Heinz ketchup

## PAGE 14

### VISION QUEST

1. 0.5

2. 0.33

3. 0.05

4. 0.1

5. 4.0

## BACK PAGE

### GIRL MEETS WORLD

1. A

2. B

3. A

4. B

5. A

*To find the answers online, click on "Teaching Resources."*

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