



SCHOLASTIC



TEACHER'S GUIDE
SUPPLEMENT TO SCHOLASTIC MATH



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ISSUE DATES	9/2	9/16	10/7	10/28	11/18	12/9	1/13	2/3	3/3	3/24	4/14	5/5
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If you're prompted to register online to access your materials, all you need is your access code: exponent

Have you visited our website at www.scholastic.com/math recently? If not, you're missing out! We've been busy making a whole suite of bonus skills sheets, videos, and games to enhance your math lessons.

Just click on the "Watch a Video" button in the digital edition to watch "China's Algae Problem." It will give some great background information about—and images of—algae blooms that cover China's beaches in green goop every year.

If you haven't yet registered for the website, don't worry—it's quick and easy! You'll use the access code above (exponent) just once to register for the year, and then you'll be able to set up a classroom password for your students to use. Then they can read the magazine on their home computers. The website will walk you through the process. If you have questions or comments, we're here to help. Just e-mail us at MathMag@scholastic.com.

Best wishes, The Editors



SKILLS GUIDE

PAGE	SKILL & ARTICLE TITLE	COMMON CORE STATE STANDARDS	ONLINE RESOURCES: www.scholastic.com/math
4	Rate A Need for Speed?	Ratios & Proportional Relationships: Use ratio reasoning to convert measurement units.	<ul style="list-style-type: none"> Download two differentiated skills sheets. Watch a background video.
6	Data Analysis Algae Overload	Statistics & Probability: Summarize numerical data sets in relation to their context.	<ul style="list-style-type: none"> Download a skills sheet. Watch a background video.
8	Statistics Dying Languages	Statistics & Probability: Summarize numerical data sets in relation to their context.	<ul style="list-style-type: none"> Watch a background video.
10	Unit Prices Hungry at the Hunger Games?	Ratios & Proportional Relationships: Solve unit rate problems including those involving unit pricing.	<ul style="list-style-type: none"> Download a skills sheet. Play a game.
12	Expressions Power Play	Expressions & Equations: Write, read, and evaluate expressions in which letters stand for numbers.	<ul style="list-style-type: none"> Download a skills sheet.
14	Percents Pudgy Pets	Ratios & Proportional Relationships: Use proportional relationships to solve multistep ratio and percent problems, for example percent increase and decrease.	<ul style="list-style-type: none"> Download a skills sheet. Watch an instructional video.
16	Classifying Triangles Frozen Feature	Geometry: Classify two-dimensional figures in a hierarchy based on properties.	<ul style="list-style-type: none"> Click on vocab words for definitions.

NAME: _____

Problem of the Day

Try one of these quick exercises each day as a fast, fun way to start your math lesson!

<p>DAY 1 A movie theater lets you serve yourself candy for \$0.49 per ounce. At that price, how much would you pay for 3.57 ounces of candy? Round your answer to the nearest cent.</p>	<p>DAY 2 What type of graph would be best to show each month's average temperature at a jungle preserve?</p>	<p>DAY 3 The formula for finding the sum of the angles in a polygon with n sides is $(n - 2) \times 180$. What is the measure of each angle in a regular hexagon (one with equal sides and angles)?</p>	<p>DAY 4 At a rate of 50 mph, how many minutes would it take to drive $12\frac{1}{2}$ miles?</p>	<p>DAY 5 Express the quotient as a mixed number in simplest form: $\frac{7}{9} \div \frac{7}{12}$</p>
<p>DAY 6 Which has the better unit price, and by how much per ounce? Round both unit prices to the nearest cent. 24 ounces for \$7.99 or 16 ounces for \$5.59</p>	<p>DAY 7 About 1,197,000,000 people in 33 countries speak Chinese. On average, how many people speak Chinese in each of those countries? Round to the nearest whole number.</p>	<p>DAY 8 How would you define this triangle by its angles and its sides?</p> 	<p>DAY 9 Hank earns \$7.50 per hour baby-sitting. Write an expression to show how much he'd earn for baby-sitting b hours. Calculate how much Hank would earn for 4 hours.</p>	<p>DAY 10 <i>The Hunger Games</i> earned \$408,010,692 at U.S. movie theaters. The average movie ticket at the time cost \$7.96. At that price, about how many tickets were sold?</p>
<p>DAY 11 *** = ^^ ^^^ = ### How many * does one # equal?</p>	<p>DAY 12 Move 3 sticks to create a total of 5 equilateral triangles.</p> 	<p>DAY 13 Express $\frac{5}{12}$ as a repeating decimal.</p>	<p>DAY 14 On a test, each question was worth 4 points, and each extra-credit was worth 2. Berta's score was a 98. She got 3 extra-credits right. How many regular questions did she get right?</p>	<p>DAY 15 Draw an acute isosceles triangle.</p>
<p>DAY 16 <i>The Hobbit: An Unexpected Journey</i> was 169 minutes long. If you paid \$8.00 for a ticket, what was the unit price per minute of film? Round to the nearest cent.</p>	<p>DAY 17 At its top speed, the peregrine falcon can dive at a rate of 355 feet per second. How many mph is that? Round to the nearest mph. (1 mile = 5,280 feet)</p>	<p>DAY 18 Express $\frac{3}{11}$ as a percent rounded to the nearest tenth of a percent.</p>	<p>DAY 19 After her owners increased her daily exercise, Bitsy the dog lost 16.7% of her total weight. What percent of her original weight does she now weigh?</p>	<p>DAY 20 In 2011–12, the NBA's Miami Heat won 46 regular-season games. In 2012–13, they won 66. What was the percent increase, rounded to the nearest tenth of a percent?</p>

Answers on T8

ANSWERS

TG PAGE 5

Skills Review

1. B
- 2.

$$\frac{73 \text{ feet}}{1 \text{ second}} \times \frac{60 \text{ seconds}}{1 \text{ minute}} \times \frac{60 \text{ minutes}}{1 \text{ hour}} \times \frac{1 \text{ mile}}{5,280 \text{ feet}}$$

3. 43 miles per hour
4. total price ÷ number of units = unit price
5. \$0.19 per pen
6. $\frac{\text{new amount} - \text{original amount}}{\text{original amount}} \times 100$
7. C
8. D
9. $\$0.10p + \$0.15p$
10. \$160.75

TG PAGE 6

Problem of the Day

1. \$1.75
2. line graph (shows change over time)
3. 720°
4. 15 minutes
5. $1\frac{1}{3}$
6. 24 ounces for \$7.99, by \$0.02 per ounce

7. about 36,272,727 people
8. obtuse scalene
9. \$7.50b; \$30.00
10. about 51,257,625 tickets

11. 2^*

12. 

13. $0.4\overline{16}$

14. 23 regular questions

15. Answers will vary. Confirm that all angles are acute and two sides are equal.

16. \$0.05 per minute

17. 242 mph

18. 27.3%

19. 83.3%

20. 43.5%

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

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COVER

Fast Math

The cheetah ran 98.5 feet in that time.

PAGES 2-3

Numbers in the News

• OH DEER!

The adult pudu is about $\frac{1}{3}$ the height of the adult white-tailed deer. Accept all reasonable answers that students can justify.

• CUPCAKE CUTBACKS

The unit price of the smaller box is \$0.02 higher per ounce. Also accept \$0.03 per ounce, which can be arrived at if students do not round until after subtraction.

• WIFI IN THE SKY

The balloon flew 11.37 miles.

• DO THE MATH!

The proposed roller coaster will be 650 feet tall.

PAGE 4

A Need for Speed?

Note: Some answers will vary depending on what step students round.

1a. 48.4 feet per second

1b. 580.8 feet

2. 44 feet per second

3. 50.3 miles per hour

4. 234.8 feet per second

5a. 55.1 feet per second

5b. 20.9 feet per second faster

PAGE 6

Algae Overload

Please accept all reasonable answers.

1. about 10 dead zones

2. about 400 more dead zones

3. 2000

4. 1990

5. The data show exponential growth.

PAGE 8

Dying Languages

1. D

2. C

3. A

4. B

5. D

6. B

7. about 169,675 speakers

8. about 7,070 more speakers

9. about 26 languages

10. about 4%

PAGE 10

Hungry at the Hunger Games?

1. \$0.10 per ounce

2. Movie theater candy costs \$0.64 more per ounce.

3. No, the unit price for the 52-ounce soda is \$0.04 less per ounce.

4. \$0.11 less (also accept \$0.10)

5. The supermarket popcorn unit price is \$0.04 less per ounce.

PAGE 12

Power Play

1a. $1 + w$

1b. 17 ounces

2a. $3n$

2b. 12 hours

3a. $\frac{1}{8}c$

3b. 30 minutes or 0.5 hours

4a. $10p$

4b. 100 children

5a. $\$10a + \$99b + \$139c + \$1,000d$

(Note: Variables chosen and the order of the equation may vary. In all cases, different variables should be used for each term.)

5b. \$85,558

PAGE 14

Pudgy Pets

1. 31%

2. 37%

3. 12%

4. 67 pounds

5. 40 pounds

BACK PAGE

Frozen Feature

1. A

2. B

3. B

4. B

5. A

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