SCHOLASTIC

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TEACHER'S EDITION

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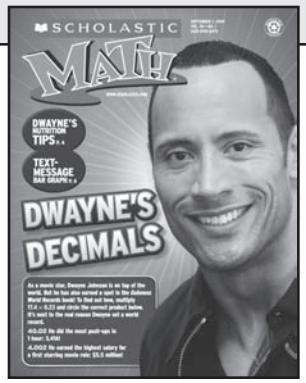
New Feature!!!

Reproducible ISSUE SKILLS REVIEW QUIZ—

p. T3 inside



Issue Date	9/7	9/21	10/12	11/2	11/23	12/14	1/11	2/1	2/22	3/22	4/12	5/3

Want to show your students how math relates to real life? Want to bring crucial literacy skills into your math classroom?

Then you have come to the right magazine! Welcome to Scholastic *MATH*. All school year long, we'll also help you meet state and national standards, prepare for standardized tests, offer career suggestions (and the math behind those jobs), and—very importantly—help bring a sense of fun to math class. This Teacher's Edition is designed to make your job easier. The tips and extension activities within are written by school headmaster, textbook author, and recent NCTM board member Laurie Boswell. Any questions? E-mail me: MathMag@scholastic.com

Jack Silbert, Editor

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SKILLS GUIDE

= Calculator Use Suitable = Critical Thinking = Writing in Math

ARTICLE	MAJOR FOCUS	REAL-LIFE CONNECTIONS	SUPPLEMENTARY SKILLS	NCTM STANDARDS*
ACTIVITY: cover Dwayne's Decimals	Decimal ×	• Actor Dwayne Johnson • *Guinness World Records*	• Decimal point placement	1, 8
FAST MATH: p. 2	Mixed skills	• St. Jude Math-A-Thon • Boat made of recycled bottles	• Whole number +, –, ×, ÷; money +, ×; order of operations; etc.	1, 2, 6, 8, 9
MATH FOR YOUR DAILY LIFE: p. 4 Dwayne's Nutritional Values	Reading a nutrition label	• Actor Dwayne Johnson • Fitness and a healthful diet	• Whole number ×, ÷ • Introduction to percents	1, 4, 8, 9, 10
STATISTICS: p. 6 Y Do U Txt?	Reading a bar graph	• Reasons why teens like to text • Negative aspects of texting	• Comparing data • Drawing conclusions	1, 5, 7, 8, 9, 10
SPORTS BY THE NUMBERS: p. 8 Championship Chase	Whole number ÷ with decimal quotients	• Calculating batting averages • Major league baseball playoffs	• Rounding decimals • Ordering decimals	1, 2, 5, 6, 8, 9
MATH AT WORK: p. 10 Cloudy With a Chance of Math	Rate: frames per second	• Career: visual effects supervisor • *Cloudy w/ a Chance of Meatballs*	• Whole number ×, ÷ • Measurement: minutes, seconds	1, 2, 4, 8, 9
PRACTICE TEST: p. 12 Law & Order of Operations	Order of operations	• Standardized test practice • *Law and Order* spoof	• Whole number +, –, ×, ÷ • Evaluating an expression	1, 2, 7, 8, 9
MATH WIZ COMICS: p. 14 Rustle Up Factors	Factors of a number	• Comic strips as a literacy tool	• Whole number ×, ÷ • Vocab: greatest common factor	1, 2, 8
STAR WRAP: back page The White House Is Bo's Place	Whole-number place value	• Bo Obama (presidential dog) • Other White House pets	• Reading a chart	1, 8, 10

***NCTM Middle School Curriculum Standards**

1. Number and Operations
2. Algebra
3. Geometry
4. Measurement
5. Data Analysis & Probability
6. Problem Solving
7. Reasoning and Proof
8. Communication
9. Connections
10. Representation

For more detailed information about the National Council of Teachers of Mathematics Standards, write to: NCTM, 1906 Association Drive, Reston, VA 20191-9988. Phone: (703) 620-9840. Fax: (703) 476-2970. E-mail: infocentral@nctm.org

DON'T MISS OUR 9/21 ISSUE...

MATH FOR YOUR DAILY LIFE: Actress Vanessa Hudgens (*High School Musical*) bought a house and teaches us about the additional costs.

STATISTICS: We take a look at a **line graph** depicting the amazing rise in popularity of the social-networking service Twitter.

HANDS-ON ACTIVITY: Andrew Lipson made a **Möbius strip** out of LEGOs! We'll show you how to make one from paper.

SPORTS BY THE NUMBERS: Calculate statistics for the top stars of women's collegiate volleyball.

...AND MUCH, MUCH MORE!

2006 WINNER AEP DISTINGUISHED ACHIEVEMENT AWARD

SUPPLEMENT TO *SCHOLASTIC MATH*

TEACHING TIPS

COVER

Dwayne's Decimals

Talk about estimation with students. They should recognize that 0.23 is close to 25% and taking $\frac{1}{4}$ of 17.4 would be 4.002 and not 40.02!

PAGES 2 – 3

Fast Math

Critic's Corner: ***True Jackson:*** Encourage students to use reasoning: the product of the two digits in the ones place, 8 and 7, ends in a 6; therefore the product of 218 × 657 must be 143,226.

PAGES 4 – 5

Dwayne's Nutritional...

Bring in nutritional labels from various products so that each pair of students has one. Ask questions similar to those in the problem set so that students can practice reading the labels. As an added element of interest, write the product name on the backside of the label. What types of products are low in carbohydrates? High in calories?

PAGES 6 – 7

Y Do U Txt?

If you know that a fair number of students in your class have cell phones, gather data about texting. You might consider doing this in written form so that students without cell phones are not embarrassed. Review the basics of a bar graph, which displays categorical data. The height of the bar conveys information about the amount of data in the category.

PAGES 8 – 9

Championship Chase

Let students know that walks, hit by pitch, and reaching on error don't count as "at-bats."

A calculator will be helpful. Review rounding with students by practicing with problems such as 0.3246, 0.2804, 0.2588, and 0.34145.

PAGES 10 – 11

Cloudy With a Chance...

Students should be comfortable with the concept of a rate. Make a list of common rates such as miles per hour, cost per ounce, and words per minute. Use several of the rates to practice conversions. Example: A car travels 65 mph; how far do they travel in 3 hours? $\frac{1}{2}$ hour?

PAGES 12 – 13

Law & Order...

The order of operations test does not include exponents. If appropriate for the level of your class, mention that exponents would be simplified left to right after parentheses and before multiplication/division.

PAGES 14 – 15

Rustle Up Factors

Students often confuse factors and multiples. I review the vocabulary: factor × factor = product. It also helps to list factors in pairs to make sure that obvious factors aren't missed.

Factors of 24 =

1 2 3 4 6 8 12 24

EXTENSION ACTIVITIES

PAGES 2 – 3

Fast Math

S.S. Recycle: A quick article about states with bottle deposit laws can be found at http://www.pollutionissues.com/A-Bo/Bottle-Deposit-Laws.html. Recycling/bottle laws would be a good topic for an interdisciplinary unit.

Nutty Numbers: On average, how many days did it take to earn 1 badge?

PAGES 4 – 5

Dwayne's Nutritional...

Work with the school nurse or the family & consumer science or science teachers to develop several daily menus that meet the recommended daily requirements.

PAGES 6 – 7

Y Do U Txt?

Find a few stories about teenagers running up huge telephone bills attributed to texting and have students calculate the number of texts made per week, per day, and per hour.

PAGES 8 – 9

Championship Chase

Explore how getting one additional hit (and at-bat) changes the average for each player in the chart. Whose average increased the most? Least?

PAGES 12 – 13

Law & Order of Operations

As a challenge, have students try to write the numbers from 1 to 30 by using four 4's and the operations +, –, ×, and ÷. Parentheses may also be used. Example: 6 = (4 + 4) ÷ 4 + 4. This is the classic "Four 4's" Problem!

PAGES 14 – 15

Rustle Up Factors

Have students research perfect, abundant, and deficient numbers.

Teaching tips and extension activities written by Laurie Boswell
Laurie is a teacher and the headmaster of Riverside School in Lyndonville, Vermont.

ISSUE SKILLS REVIEW #1

For use with the September 7, 2009, issue of Scholastic *MATH* Magazine.
Circle the letter of the correct answer, or write the correct answer in the answer box.

1 When multiplying two decimal numbers, the decimal point in the product is how many places to the left?

Ⓐ The greater number of decimal places of those two numbers
Ⓑ The total of the number of decimal places in the two numbers
Ⓒ The total number of zeros in the two numbers
Ⓓ Decimal point? I thought that was a bug.

2 Multiply: $13.8 \times 6.339 =$

3 Nutrition labels on processed foods include which of the following?

Ⓐ Correct serving size
Ⓑ Amount of different nutrients in each serving
Ⓒ Recommended daily amounts of those nutrients
Ⓓ All of the above
Ⓔ Lots of grease stains

4 A percent represents…

Ⓐ A comparison of two numbers
Ⓑ An unknown number in an equation
Ⓒ A number out of 100
Ⓓ The kind of money a per uses

5 What is a bar graph useful for?

Ⓐ Change in data over a period of time
Ⓑ Displaying slices of data that add up to a whole
Ⓒ Comparison of several different amounts
Ⓓ A place to hang your hats

6 The thousandths place is…

Ⓐ Three places to the right of the decimal point.
Ⓑ Four places to left of the decimal point.
Ⓒ Four places to the right of the decimal point.
Ⓓ A really good place!

7 What is the batting average of someone who got 24 hits in 77 at-bats?

8 Animation is shown at 24 frames per second. If a scene is 4,872 frames long, how many minutes and seconds long is it?

9 A factor of a number is…

Ⓐ The product of that number and any other whole number
Ⓑ A number that divides evenly into that number (with no remainder)
Ⓒ A number that can only be evenly divided by itself or 1
Ⓓ The boy version of a factress

10 In the number 18,357,941,622, which digit is in the millions place?

ANSWER PAGE

COVER: DWAYNE'S DECIMALS

Dwayne earned the highest salary for a first starring movie role: $5.5 million! (4.002)

PAGES 2 – 3: FAST MATH

✔ **Critic's Corner: *True Jackson, V.P.***
The Obama girls' favorite character is Lulu. (143,226)

✔ **S.S. Recycle**
You would receive $600.

✔ ***MATH* Spotlight on...Miranda Cosgrove**
She would raise $235.

✔ **Wipe Up This MMMess**
The coupon should read $.35 or 35¢, not .35¢.

✔ **Nutty Numbers**
Cody earned 121 merit badges.

PAGES 4 – 5: DWAYNE'S NUTRITIONAL VALUES

1a. About 20 chips **b.** 120 calories **c.** 6 calories
2a. 135mg **b.** Less than 2,400mg **c.** 17 servings (2,295mg)
3. 84 calories
4. 20 servings
5a. 28% **b.** 52%

PAGES 6 – 7: Y DO U TXT?

1. Don't have to talk in person
2. About 600 teens
3. Can wait for reply
4. About 400 more teens
5. Each teen picked their 3 top reasons.
6. C
TALK ABOUT IT: Answers will vary.

PAGES 8 – 9: CHAMPIONSHIP CHASE

Here are the batting averages from the chart, from top to bottom: Beltran, .366; Guerrero, .240; Jeter, .309; Jones, .288; Ortiz, .293; Pujols, .323; Suzuki, .421; Utley, .213
1a. Ichiro Suzuki **b.** Chase Utley
2. Ortiz has many more at-bats.
3a. .311 **b.** .302

PAGES 10 – 11: CLOUDY WITH A CHANCE OF...

1a. 24 frames per second × 5 seconds **b.** 120 frames
2. 192 frames
3. 4,320 frames
4. 1,248 frames
5a. 1 minute, 15 seconds **b.** 1,800 frames
6. 9,936 frames
THINK ABOUT IT: Answers will vary. Examples: budgets, elapsed time, measurement, scale, etc.

PAGES 12 – 13: LAW & ORDER OF OPERATIONS

1. B **2.** B **3.** A **4.** C **5.** D **6.** B

7. 3 × $5.95 + $3.60 (answers may vary slightly)
8. ×; 25
9. Answers will vary. Make sure that expressions cannot be evaluated from left to right and that students properly describe the order of operations for the expression.
10. At 12 – 4 + 6, he added first, instead of adding and subtracting from left to right. The correct answer is 14.

PAGES 14 – 15: RUSTLE UP FACTORS

1. No **5.** 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
2. 14 **6.** 42
3. 6 **7.** 8
4. 2

BACK PAGE: THE WHITE HOUSE IS BO'S PLACE

A. 3 **B.** 9 **C.** 8 **D.** 2 **E.** 5 **F.** 7

PAGE T3: ISSUE SKILLS REVIEW

1. B **4.** C **7.** .312 **10.** 7
2. 87.4782 **5.** C **8.** 3 minutes, 23 seconds
3. D **6.** A **9.** B

QUESTIONS about an ANSWER?
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Maurice R. Robinson, founder, 1895-1982

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