

SCHOLASTIC

MATH

Where Math Gets Real™

TEACHER'S GUIDE

JANUARY 20, 2020

VOL. 40, NO. 6 ISSN 0198-8379
SUPPLEMENT TO SCHOLASTIC MATH

Need help? Give us a call:
1-800-SCHOLASTIC
(1-800-724-6527)

ISSUE DATES

9/2

9/23

10/21

11/18

12/16

1/20

2/17

3/16

4/13

5/11

Try Something NEW With MATH in 2020!

Dear Teacher,

We hope you're feeling refreshed from your break and ready to set new goals in 2020. And if incorporating more technology into your math lessons is on your list . . . we've got you covered!

See what our subscribers have to say about their favorite digital *MATH* teaching tool and why they love it. Dr. Carey Averill, principal of Star of the Sea Catholic School in Virginia Beach, Va. says, "My teachers have so many favorites when it comes to *MATH*'s online tools, including the differentiated exit slips! They also love the videos because they spark interest, increase engagement, and demonstrate how math lessons are real-world problems."

So if you haven't headed online to scholastic.com/math yet, you're missing out! We promise it will make the second half of the school year even better than the first.



Sincerely,
Karina Hamalainen, Editor
khamalainen@scholastic.com



I love the Google Quizzes that come with each article! All of the math questions are ready to assign. My favorite part is that I can also edit the questions or add more to the quiz before I roll it out to the students."



— Emily Bricker, Grades 7 & 8 Math Teacher
Brookpark Middle School
Grove City, OH



If you ask my students, they enjoy the videos and the games the most. I can have them screenshot their scores and attach it to a Google assignment. They get very competitive!"



— Niurka Coy-Bush, CTE Math Teacher
Shared Time School
Freehold, NJ

JOIN OUR FACEBOOK GROUP!

Meet other *Scholastic MATH* subscribers by joining our private Facebook group. It's a place for you to connect with math educators, share ideas, learn how others are using the magazine, and get updates on all things *MATH*!

facebook.com/groups/scholasticmath



CONNECT WITH US!

✉ mathmag@scholastic.com



@KAHamalainen

@ScholasticTeach



Scholastic MATH
Community

Scholastic Teachers

Haven't activated your Scholastic MATH Digital account yet?
Go to: scholastic.com/math | Use your access code

Domino Designer

OBJECTIVE

Students will divide fractions and mixed numbers to calculate measurements for designing domino displays.

KEY STANDARDS

COMMON CORE: 6.NS.A.1

TEKS: 6.13B, 6.3A, 6.3E, *6.2E

MATHEMATICAL PRACTICE: MP2, MP6, MP7

*Additional standards covered in Skill Builders.

WARM-UP

Divide students into small groups. Provide each group with a few sets of fraction circles or distribute copies of the “Fraction Circles” template. Use these as manipulatives to show the conversion process between mixed numbers and improper fractions.

ELA: SEQUENCING

Tell students to consider the sequence, or chronological order, of events described in the article. Select a volunteer to read the first two paragraphs aloud. Ask students to tell, in order, the events that influenced Lily Hevesh to become a professional domino artist. Then have students finish reading the article individually. Ask them to look for the sequence of steps Hevesh takes in order to complete a domino project.

PRIOR LEARNING

Review the following skills used when dividing fractions. Ask students to describe the processes and have volunteers walk you through at least one specific example of each.

- Converting mixed numbers to improper fractions and vice versa
- Finding reciprocals
- Multiplying fractions
- Simplifying fractions

SKILL SPOTLIGHT

Play the video “Dividing Fractions” (online at scholastic.com/math). Then read through the introduction and the example of the “Dividing Fractions” box on page 5.

- For Step 1, ask: Why is $24\frac{1}{2}$ the dividend and $1\frac{3}{4}$ the divisor rather than the other way around? ($24\frac{1}{2}$ is the total length, so it should be the dividend. $1\frac{3}{4}$ is the size of the smaller equal lengths that the full length is split into.)

- For Step 2, ask: Can you walk me through how each of these mixed numbers was changed into an improper fraction? (For $24\frac{1}{2}$, $24 \times 2 + 1 = 49$ for the numerator, and the denominator remains 2. For $1\frac{3}{4}$, $1 \times 4 + 3 = 7$ for the numerator, and the denominator remains 4.)
- For Step 3, ask: Which fraction remains the same when turning the division sentence into a multiplication sentence? Which fraction do you flip into its reciprocal? (The first fraction, the dividend, remains the same. The second fraction, the divisor, gets flipped into its reciprocal.)
- For Step 4, ask: How do you simplify the answer $\frac{196}{14}$? (Divide 196 by 14 since the fraction bar is a symbol that means divide. $196 \div 14 = 14$)

ASSESSMENT

Often students will be required to complete multiple operations when solving problems using fractions. Provide students with a short assessment that includes one or two examples each of adding, subtracting, multiplying, and dividing fractions. Before students complete the assessment, remind them that they need to find common denominators when adding or subtracting fractions, but they do not need to find common denominators when multiplying or dividing fractions.

STEAM CONNECTION: SCIENCE

Ask students: Do you think the distance between dominoes affects the speed at which they fall? Tell them they will design an experiment to investigate this question. Download or distribute copies of the activity “Topleft Time” from *Science World* for step-by-step instructions: scienceworld.scholastic.com/content/dam/classroom-magazines/scienceworld/issues/2018-19/021119/domino-designer/sw-021119-domino-topleft-time.pdf. Collect and display each group’s graph and have students perform a gallery walk of the results.

→ scholastic.com/math

VIDEO: Domino Designer	MATH VIDEO: Dividing Fractions	SKILL BUILDERS: → Reciprocals → Domino Division	EXIT SLIPS: A On Level B Advanced
		→ Template: Fraction Circles	

After the Fire

OBJECTIVE

Students will convert measurements of Paris's Notre-Dame cathedral between units, including a historical unit called the pied du Roi.

KEY STANDARDS

COMMON CORE: 6.RP.A.3.D

TEKS: 7.4E, *6.4H

MATHEMATICAL PRACTICE: MP1, MP6, MP8

**Additional standards covered in Skill Builders.*

WARM-UP

Have students brainstorm a list of the measurement conversions they know. Post a few sample measurements for students to convert (e.g., convert 4 feet to inches; convert 60 inches to feet). Allow a few student volunteers to explain how they did these conversions. You can use the following discussion prompts:

- What operations did you use to make these conversions?
- How did you know when to multiply and when to divide?
- How can you check your answer when you have completed the conversion?

ELA: PROBLEM AND SOLUTION

Distribute copies of the “Problem and Solution” literacy skill builder to each student. Point out that as students read, they can identify actual solutions or potential solutions to the problems they find in the article. Have students read the article and complete the sheet individually. Then allow volunteers to share the problems and solutions they identified in the article.

SKILL SPOTLIGHT

Read through the introduction and the example of the “Converting Proportional Measurements” box on page 7 as a class. Then call attention to the processes in the following steps:

- **For Step 2:** Make sure that the same units are in the same part of the fractions. Since meters are in the numerator for the conversion factor, they need to be in the numerator for the proportion as well. This is so the original unit will cancel out when we cross multiply to find x .
- **For Step 3:** Note that since you divide both sides by 1 meter to isolate x , the meter units cancel, leaving you with the desired final unit of pieds du Roi. Remind students that making sure your original units cancel is a good check that you have set up the problem correctly.

HANDS-ON LEARNING

Have students measure items in the classroom in inches. Make sure they measure a variety of different-sized items, including those with small and large lengths. Ask students to first convert the measurements to feet and then to meters. Tell students to consider which units of measurement make the most sense for reporting the sizes of the objects. Have them report their measurements and conversions to the class once they are finished.

CONDUCT RESEARCH

Notre-Dame is a famous Gothic cathedral in Paris. Visit scholastic.com/math for the “MATH+” article that includes additional information on gothic architecture and the history of Notre-Dame. Have students work in groups to research other famous buildings and their architectural styles. Possible examples include the Colosseum and ancient Greek architecture, the Palace of Versailles and French Baroque architecture, and the Hagia Sophia and Byzantine architecture. Just as this article presented information on the history and architectural style of Notre-Dame, students can search for and present information about these other famous buildings.

WRITING

Measurement is an area of math where students can see the importance of its everyday use. Before or after the lesson, have students complete a journaling activity each day for one week. Have them answer the following questions for one object per day:

- What is an object in your school or home whose measurement you think is important to know?
- About how big is this object? Measure it if possible.
- What units would you use to express this object's size?
- Are there any familiar measurement conversions that would help you when figuring out the size of this object?

→ scholastic.com/math

MATH+:

A Captivating Cathedral

GAME:

Swap It!

SKILL BUILDERS:

→ Metric Lengths

→ Cathedral Conversions
→ ELA: Problem and Solution

EXIT SLIPS:

A On Level
B Advanced

Lessons From Poop

OBJECTIVE

Students will find parts when given percents and wholes in questions related to penguins in Antarctica.

KEY STANDARDS

COMMON CORE: 6.RP.A.3.C

TEKS: 6.5B, *6.4E, *6.4F, *6.5C

MATHEMATICAL PRACTICE: MP1, MP2, MP5

*Additional standards covered in Skill Builders.

WARM-UP

When working with percents, students need to be able to identify the part, the percent, and the whole. Provide students with a few different combinations and have them identify the part, the percent, and the whole. Some examples include:

- 11, or about 46%, of 24 students in a class are girls.
- A sweater originally cost \$40, but it is on sale for 30% off, so it is now \$28.
- To pass a class, Christine has to get at least 60% on her test. That means she has to earn at least 30 of the 50 possible points.

VIDEO: ALL ABOUT PENGUINS

After playing the video, ask the following questions:

- How are penguins different from other bird species? (They don't fly—they dive, swim, and walk.)
- Where do penguins live? (They live on all continents in the Southern Hemisphere.)
- What is molting? Why do penguins molt? (Molting is when penguins lose their feathers. Doing this keeps their coats healthy.)

ELA: KNOWLEDGE INTEGRATION

Distribute copies of the “Watch and Learn” literacy Skill Builder to each student. Tell students that they will need to use both the information in the video and in the article to complete the sheet. Then allow volunteers to share their answers to the questions.

DIFFERENTIATION

Drawing models can help students who may have trouble visualizing various percentages. Distribute graph paper and have them cut out a 10 × 10 square. Assign each student a different percentage to represent. Have students color in the squares of their grid so that their models

represent the percent they were assigned (e.g., 32%, 32 shaded squares). Then have them post their grids on a classroom wall in ascending order and write labels above each model.

SKILL SPOTLIGHT

Read through the introduction and the example in the “Finding Percent of a Number” box on page 11. Have students identify the part, the percent, and the whole in the example. Then read through the steps and ask the following questions:

- For Step 1: What do you notice about how the percent looks as a decimal? (The decimal point is two spaces to the left.)
- For Step 2: What are you multiplying in Step 2? (the whole and the percent)
- For Step 3, ask: Why does it make sense to round to the nearest whole number? (because you cannot have a fraction of a penguin)

LESSON EXTENSION

Tell students that percents greater than 100% can frequently be seen in the real world, such as when growth occurs. Teach students how to find percents greater than 100% using the same process taught in the article.

- A high school had 340 graduating seniors last year. This year, the number of graduating seniors is 140% of the number last year.
- A lizard's tail length is 250% the length of its body.

STEAM CONNECTION: SCIENCE

You don't need to sail in rough waters to help Youngflesh with his research! All you need is an internet connection! Students can log bird sightings on eBird.com or help identify penguins in time lapse footage for a project called Penguin Watch at penguinwatch.org.

→ scholastic.com/math

VIDEO:

All About Penguins

SKILL BUILDERS:

→ Modeling Percents

→ Poop Percents

→ ELA: Watch and Learn

EXIT SLIPS:

A On Level

B Advanced

Big Game Big City

OBJECTIVE

Students will make and analyze a dot plot describing the number of times different cities have hosted the Super Bowl.

KEY STANDARDS

COMMON CORE: 6.SP.B.4, *6.SP.B.5.B

TEKS: 6.12A, 6.12D, *6.12B, *6.13B

MATHEMATICAL PRACTICE: MP3, MP4, MP5

*Additional standards covered in Skill Builders.

WARM-UP

Students will graph data from statistical questions in this lesson. Discuss the difference between statistical and non-statistical questions. Then tell students that for each statistical question they hear, they should stand up. For each non-statistical question, students should sit down. Some examples include:

- How many Super Bowls have the New York Giants won? (*non-statistical*)
- What is the average number of seats in an NFL football stadium? (*statistical*)

COMPREHENSION QUESTIONS

Have volunteers read paragraphs of the entire article aloud to the class. Then ask the following questions:

- What is the article about? (*where the Super Bowl is held*)
- Where will the Super Bowl be held this year? Is this the first time the Super Bowl has been held there? (*Miami, FL; No, this year will be the 11th time there.*)
- How is it determined where the Super Bowl is held? How was it determined where Super Bowls were held in the past? (*The Super Bowl rotates among a handful of cities across the country. It used to be held in cities that won a bidding process.*)
- What does a city need to host a Super Bowl? (*a stadium with about 70,000 seats, sufficient parking, and hotel availability within a 20-minute drive*)
- What is special about this year's Super Bowl? (*Miami is holding a week-long festival leading up to the Super Bowl.*)

PRIOR LEARNING

Review measures of center with your students: mean, median, and mode. Collect a set of data, such as their ages or heights, from your students. Then have volunteers walk you through how to find the mean, median, and mode for that set of data.

MATH VIDEO: CRITTER COUNT: UNDERSTANDING DOT PLOTS

After playing the video, ask the following questions:

- Notice that the dots are all the same size and evenly spaced. Why is this important? (*Dot plots with irregular spacing or different sized dots can be misleading.*)
- Why are dot plots used? (*to efficiently organize data*)
- How do you find out the total amount of data collected? (*Count all of the dots on the dot plot.*)
- How can you determine which category has the most data points? (*Find the tallest column of dots.*)

SKILL SPOTLIGHT

Read through the introduction and example of the "Making a Dot Plot" box on page 15. Review and discuss the blue call-out text accompanying the dot plot. Then ask:

- How many times has each team participated in the Super Bowl? Patriots (11) Steelers (8) Cowboys (8) Broncos (8) 49ers (6) Packers (5)
- How many total appearances are represented in the dot plot? (46) How do you know? (*Add all the dots counted for each team together.*)
- Which team has been to the Super Bowl the most times? (*Patriots*) The fewest? (*Packers*)
- This dot plot displays teams from greatest to fewest Super Bowl wins. Do all dot plots need to be ordered in this way? Why or why not? (*No; answers will vary.*)

LESSON EXTENSION

Have students draw a bar graph using the data from the chart in the "Your Turn" section. Have students analyze their dot plot versus their bar graph by answering the following questions:

- How are the dot plot and bar graph similar? Different?
- Which type of graph do you think best represents the data? Why?

→ [scholastic.com/math](https://www.scholastic.com/math)

MATH VIDEO:

Critter Count:
Understanding Dot Plots

SKILL BUILDERS:

→ Clusters and
Outliers

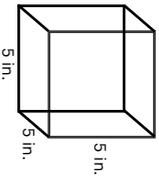
→ Game Day Data

EXIT SLIPS:

A On Level
B Advanced

Problem of the Day

Try one of these quick exercises each day as a fast, fun way to start your math lesson! Round answers to the nearest whole number, unless otherwise asked.

<p>DAY 1</p> <p>You have $\frac{5}{8}$ of a pizza in the refrigerator. You eat half of it and save the other half for tomorrow. How much of the pizza will you have left?</p>	<p>DAY 2</p> <p>About 60% of the human body is water. If All weighs 102 lb, about how many pounds of water is she made up of?</p>	<p>DAY 3</p> <p>Find the surface area.</p> 	<p>DAY 4</p> <p>Adelie penguins can dive as deep as 175 meters. Write an inequality that represents the depth they can dive using the variable d.</p>	<p>DAY 5</p> <p>Zahi is baking chocolate chip cookies. The recipe calls for 350 grams of flour and 200 grams of chocolate chips. Express the ratio of chocolate chips to flour in simplest form.</p>
<p>DAY 6</p> <p>The dots in a dot plot are stacked in a(n) _____.</p> <p>Ⓐ row Ⓒ circle Ⓑ column Ⓓ array</p>	<p>DAY 7</p> <p>Which type of graph would best show the number of students eating lunch at the school cafeteria every half hour between the hours of 10:30 a.m. and 1:00 p.m.? Explain.</p>	<p>DAY 8</p> <p>The 1998 Doctor Dolittle movie cost \$71,500,000 to produce. The film grossed \$294,156,605 worldwide. How much profit did the movie make?</p>	<p>DAY 9</p> <p>The Winter Youth Olympics begins on January 9 in Switzerland. When deciding on the location, 71 judges voted for Switzerland and 10 voted for Romania. What percent voted for Switzerland?</p>	<p>DAY 10</p> <p>Neha arrives at a New Year's celebration at 9:02 p.m. She stays until half an hour past midnight. How long was she at the celebration for?</p>
<p>DAY 11</p> <p>Many birds fly in a triangle formation to reduce wind resistance. A flock of geese form a triangle shape with angles measuring 62° and 54°. What is the measure of the third angle?</p>	<p>DAY 12</p> <p>The year 2020 is made up of a repeating number. How many years ago was the last time that happened?</p>	<p>DAY 13</p> <p>What number, other than 4 and 36, is a multiple of 4 and a factor of 36?</p>	<p>DAY 14</p> <p>Tania has 6 pairs of socks. Of those pairs, 2 are red, 2 are blue, 1 is black, and 1 is white. If she randomly pulls a pair out of her drawer, what is the probability it won't be blue?</p>	<p>DAY 15</p> <p>What is the slope of a line with coordinates (5, 3) and (4, 1)?</p>
<p>DAY 16</p> <p>You paid \$30 for a dress you've worn twice and \$75 for a sweater you've worn 6 times. Which has the lower cost per wear?</p>	<p>DAY 17</p> <p>Which 2-D shape will you get if you slice a baseball in half?</p> <p>Ⓐ oval Ⓒ triangle Ⓑ rectangle Ⓓ circle</p>	<p>DAY 18</p> <p>Which is greater?</p> <p>5.2×10^6 or 53×10^5</p>	<p>DAY 19</p> <p>Solve for x in the proportion. Round your answer to the nearest hundredth.</p> $\frac{x}{8} = \frac{412}{17}$	<p>DAY 20</p> <p>January 20 is Martin Luther King Jr. Day. The Montgomery bus boycott, in which King played a key role, lasted for 381 days. How many years is that, rounded to the nearest thousandth?</p>

ANSWERS

PAGE 2

NUMBERS IN THE NEWS

All-Woman Spacewalk

560 - 495 = 65 women

65:560 = 13:112

How Bees Catch Zzz's

$33^\circ \leq t \leq 35^\circ$

Rubik's Robot

$125 \times 0.60 = 75$ times

PAGE 4

DOMINO DESIGNER

1. $1\frac{1}{2} = \frac{3}{2}$

$18 \div \frac{3}{2} = 18 \times \frac{2}{3} = 12$ dominoes

2. $1\frac{5}{8} = \frac{13}{8}$

$26 \div \frac{3}{8} = 26 \times \frac{8}{13} = 16$ dominoes

3. $21\frac{1}{4} = \frac{85}{4}$; $1\frac{1}{4} = \frac{5}{4}$

$\frac{85}{4} \div \frac{5}{4} = \frac{85}{4} \times \frac{4}{5} = 17$ dominoes

4. $1\frac{2}{5} = \frac{7}{5}$

$35 \div \frac{7}{5} = 35 \times \frac{5}{7} = 25$ levels

5. $14 \div \frac{7}{25} = 14 \times \frac{25}{7} = 50$ dominoes

No, she doesn't have enough dominoes. She needs 25 more.

PAGE 6

AFTER THE FIRE

1. $\frac{4,100 \text{ cm}}{w} = \frac{32.48 \text{ cm}}{1 \text{ pdr}}$

$w = 126.23$ pieds du Roi

2. $\frac{35 \text{ pdr}}{w} = \frac{30.90 \text{ pdr}}{10 \text{ m}}$

$w = 11.33$ meters

3. $\frac{4,500 \text{ mm}}{h} = \frac{162.4 \text{ mm}}{0.5 \text{ pdr}}$

$h = 13.85$ pieds du Roi

4. $\frac{60 \text{ in.}}{h} = \frac{6.4 \text{ in.}}{0.5 \text{ pdr}}$

$h = 4.69$ pieds du Roi

5A. $\frac{242 \text{ pdr}}{226 \text{ ft}} = \frac{x}{1 \text{ ft}}$

$x = 1.07$ pieds du Roi

5B. Answers will vary. Please accept all reasonable answers.

PAGE 8

LESSONS FROM POOP

1.

Island	Guano Area (square meters)
Beagle	494,080
Brash	295,230
Earle	53,093
Heroina	455,416
Platter	100,809

2. Largest area: Beagle

Smallest area: Earle

3. Total guano area: $494,080 \text{ m}^2 + 295,230 \text{ m}^2 + 53,093 \text{ m}^2 + 455,416 \text{ m}^2 + 100,809 \text{ m}^2 = 1,398,628 \text{ m}^2$

$1,398,628 \text{ m}^2 \times \frac{0.53 \text{ nests}}{1 \text{ m}^2} \times \frac{2 \text{ penguins}}{1 \text{ nest}}$

$= 1,482,546$ penguins

4. $0.55x = 1,503,054$

$x = 2,732,825$ Adélie penguins

PAGE 12

WE NEED #DIVERSEBOOKS

Accept all reasonable answers based on the graphs. Answers were found using the original data.

1. B, White

2. C, 2016

3. D, 1,008

$144 \text{ weeks} \times 7 \text{ days/week} = 1,008 \text{ days}$

4. B, 120

$70 + 50 = 120$

5. A, 188

$5\% + 1\% = 6\%$

$3,134 \times 0.06 = 188.04 \approx 188$

6. D, 250

$340 - 90 = 250$

7. $144:14 = 72:7$

8. $50 \div 3,200 = 0.0156 \approx 2\%$

9. $\frac{108 - 27}{27} \times 100 = 300\%$

10. Answers will vary. Please accept all reasonable bar graphs.

PAGE 14

BIG GAME BIG CITY

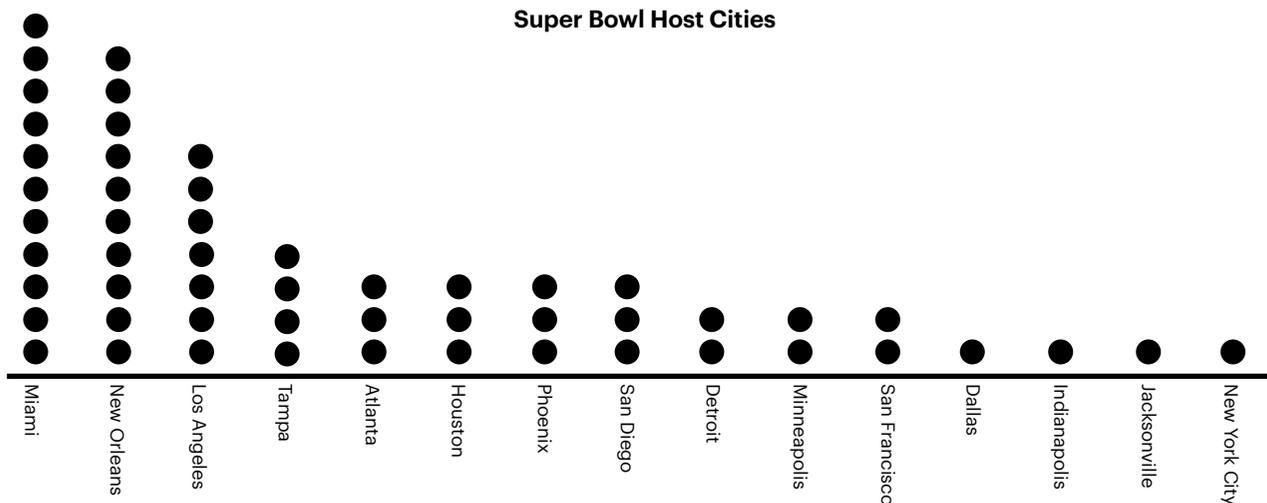
1. Category: City/region

2. $11 + 10 + 7 + 4 + 3 + 3 + 3 + 3 + 2 + 2 + 2 + 1 + 1 + 1 + 1 = 54$ total dots; 54 represents the total number of times the Superbowl has occurred since 1967.

3. See dot plot below.

4. 3 and 1

5. The southeast is chosen most often; answers will vary. Possible answer: The warmer climates are most preferred to play in.



Continued On Next Page →

ANSWERS

PAGE 16

BY THE NUMBERS: DOLITTLE

Use the order of operations to solve.

- Subtract 180 from 230 and add 10
- Multiply 60 by 32
- Add 3 to 1920
 $(230 - 180 + 10) \times 32 + 3 = ?$
 $(60) \times 32 + 3 = 1923$

The Voyages of Doctor Dolittle won the Newbery Medal for children's literature in 1923.

PROBLEM OF THE DAY

1. $\frac{5}{8} \times \frac{1}{2} = \frac{5}{16}$

2. $102 \text{ lb} \times 0.60 = 61.2 \approx 61 \text{ lb}$

3. $SA = 6(5 \text{ in.})^2 = 150 \text{ in.}^2$

4. $d \leq 175$

5. $200:350 = 4:7$

6. B, column

7. A line graph because it shows change over time.

8. $\$294,156,605 - \$71,500,000 = \$222,656,605$

9. $71 - 9 = 62$; $62 \div 71 = 0.87 = 87\%$

10. 12:30 a.m. - 9:02 p.m.
 = 3 hours 28 minutes

11. $180^\circ - (62^\circ + 54^\circ) = 64^\circ$

12. $2020 - 1919 = 101 \text{ years}$

13. 12

14. $\frac{4}{6}$ or 67%

15. $m = \frac{1-3}{4-5} = \frac{-2}{-1} = 2$

16. Dress: $\$30 \div 2 \text{ wears} = \15 per wear
 Sweater: $\$75 \div 6 \text{ wears} = \12.50 per wear

17. D, circle

18. 53×10^5

$53 \times 10^5 = 5,300,000$

$5.2 \times 10^6 = 5,200,000$

19. $8 \times 17 = 412x$

$x = 0.33$

20. $381 \text{ days} \times \frac{1 \text{ year}}{365 \text{ days}} = 1.04 \text{ years}$

In This Issue:

ARTICLE	COMMON CORE STANDARDS	scholastic.com/math	
PAGE 4 Domino Designer Lexile: 900L	THE NUMBER SYSTEM: Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions.	SKILL BUILDERS • CORE SKILLS: Reciprocals • +5 QUESTIONS: Domino Division • 2 EXIT SLIPS • TEMPLATE: Fraction Circles	VIDEO Domino Designer MATH VIDEO Dividing Fractions
PAGE 6 After the Fire Lexile: 1020L	RATIOS & PROPORTIONAL RELATIONSHIPS: Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	SKILL BUILDERS • CORE SKILLS: Metric Lengths • +5 QUESTIONS: Cathedral Conversions • 2 EXIT SLIPS • ELA: Problem and Solution	GAME Swap It! MATH+ A Captivating Cathedral
PAGE 8 Lessons From Poop Lexile: 990L	RATIOS & PROPORTIONAL RELATIONSHIPS: Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $\frac{30}{100}$ times the quantity).	SKILL BUILDERS • CORE SKILLS: Modeling Percents • +5 QUESTIONS: Poop Percents • 2 EXIT SLIPS • ELA: Watch and Learn	VIDEO All About Penguins
PAGE 14 Big Game, Big City Lexile: 1120L	STATISTICS & PROBABILITY: Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	SKILL BUILDERS • CORE SKILLS: Clusters and Outliers • +5 QUESTIONS: Game Day Data • 2 EXIT SLIPS	MATH VIDEO Critter Count: Understanding Dot Plots

POSTAL INFORMATION: SCHOLASTIC MATH MAGAZINE (ISSN 0198-8379; in Canada, 2-c no. 9386; USPS 567-350) is published 10 times during the school year; biweekly September; monthly October, November, December, January, February, March, April, May; by Scholastic Inc., 2931 E. McCarty St., P.O. Box 3710, Jefferson City, MO 65102-3710. Periodical postage paid at Jefferson City, MO 65102 and additional mailing offices. POSTMASTERS: Send notice of address changes to SCHOLASTIC MATH MAGAZINE, 2931 East McCarty St., P.O. Box 3710, Jefferson City, MO 65102-3710. **PUBLISHING INFORMATION:** U.S. prices: \$8.49 each per year, \$5.75 per semester, for 10 or more subscriptions to the same address. Fewer than 10 subscriptions, call 1-800-SCHOLASTIC. Communications relating to subscriptions should be addressed to SCHOLASTIC MATH MAGAZINE, 2931 East McCarty Street, P.O. Box 3710, Jefferson City, MO 65102-3710, or call toll-free: 1-800-SCHOLASTIC, or on the web, www.scholastic.com/custsupport. Communications relating to editorial matter should be addressed to Karina Hamalainen, SCHOLASTIC MATH MAGAZINE, 557 Broadway, New York, NY 10012-3999. Email address: MathMag@scholastic.com. © 2020 Scholastic Inc. SCHOLASTIC and Scholastic Math and associated logos are trademarks and/or registered trademarks of Scholastic Inc. All rights reserved. Materials in this issue may not be reproduced in whole or in part in any form or format without special permission from the publisher.



CONTAINS A MINIMUM OF 10% POST CONSUMER FIBER