



# Dazzling Math Line Designs

By Cindi Mitchell

S C H O L A S T I C  
PROFESSIONAL BOOKS

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*To my husband, Jim Mitchell, who believed in me  
before I believed in myself.*



*Every once in a while you find an editor that is your perfect complement.  
Her strengths are your exact weaknesses. Deborah Schecter is that editor for me.  
I would like to extend to her my heartfelt thanks for  
sharing her many talents to help create a truly “dazzling” book!*

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# Introduction

**M**athematics is everywhere! We use it to tile a floor, build a skyscraper, or create designs like the ones in this book.

When students begin to make the connection between art and math, their eyes light up and mathematics becomes more than a row of tedious problems on the page. I hope that by creating the designs on these pages, your students will discover and enjoy the creative side of mathematics.

## How to Use This Book

There are three different types of activities in this book. Teaching tips for each type follow.

**Designs to Color** (pages 8–24) are geometric shapes with basic math problems in them. Students solve the problems, then color the shapes based on the answers. The finished designs will make a perfect addition to your math learning center or bulletin board. For these designs, students need crayons or colored pencils. Tell students to solve all of the problems before they start coloring.

In the section **Designs to Create** (pages 25–41), students also solve math problems. Then they

draw straight lines to connect dots beside the problems to the dots beside their answers. When all of the dots have been connected, beautiful line designs emerge that are suitable for framing. For these designs, students need a ruler, a sharp pencil, and an eraser. One of

they start drawing. Tell them to work carefully, as many activities have more answers than problems to be solved.

**Designs to Construct** (pages 42–61) are fun and easy to make. Students complete math

problems, then color the shapes based on the answers. After coloring the design, students simply cut it out, then fold and tape it together. (Easy assembly how-tos are provided on pages 42 and 43.) For these designs, students need crayons or colored pencils, scissors, and tape. The finished products are colorful three-dimensional designs that can be hung on mobiles, used as holiday ornaments, or given as gifts.

Note: It's not necessary for fourth and fifth graders to learn the names for complex geometric shapes. But you will no doubt have some students who want to learn these technical definitions.

You'll find the term for each construction listed on pages 42 and 43.

To help you use this book along with your math curriculum, the chart on pages 6 and 7 organizes the activities by skill area and level. You can see at a glance all of the activities that focus on a specific math skill—for example, subtraction of fractions with unlike denominators.

Many of the activity pages include a Taking It Further problem. These problems are designed to challenge students by allowing them to apply the math operation used to complete the main design activity. Answers to these problems can be found on pages 62–64.

Don't let students stop with these activities. Invite them to create their own designs for their classmates to color, create, and construct!

*Cindi Mitchell*

Name \_\_\_\_\_

**Queen's Gem** DECIMALS  
Multiplication

Solve the problems.  
 If the answer is between 0 and 200, color the shape red.  
 If the answer is between 201 and 400, color the shape orange.  
 If the answer is between 401 and 800, color the shape blue.  
 If the answer is between 801 and 1,000, color the shape purple.  
 Finish the design by coloring the other shapes with the colors of your choice.  
 For more fun, cut out the design and fold it into a gem.

60

Name \_\_\_\_\_

**Stained Glass Octagon** FRACTIONS  
Addition with Unlike Denominators

Solve the problems. Then rename the answers in lowest terms.  
 If the answer is  $\frac{1}{2}$  or greater, color the shape green.  
 If the answer is less than  $\frac{1}{2}$ , color the shape orange.  
 Finish the design by coloring the other shapes with the colors of your choice.  
 Taking It Further: Complete the magic square so that each row and column adds up to 1. Rename any fractions in lowest terms.

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$
$\frac{1}{3}$	$\frac{1}{6}$	$\frac{1}{3}$
$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{4}$

18

Name \_\_\_\_\_

**The North Star** MULTIPLICATION  
Two Digits  $\times$  One Digit

Solve the problems. Then connect the dot beside each problem to the dot beside its answer. One line has been drawn for you. Some dots will not be used.  
 Taking It Further: Multiply across and add down to complete the puzzles.

15	10	10	10
+	+	+	+
15	10	10	10
+	+	+	+
15	10	10	10

24	11	11	11
+	+	+	+
24	11	11	11
+	+	+	+
24	11	11	11

25

the activities requires a compass. Again, encourage students to solve all of the problems before



# Skills Matrix

The chart on these two pages organizes the activities in this book by skill area.

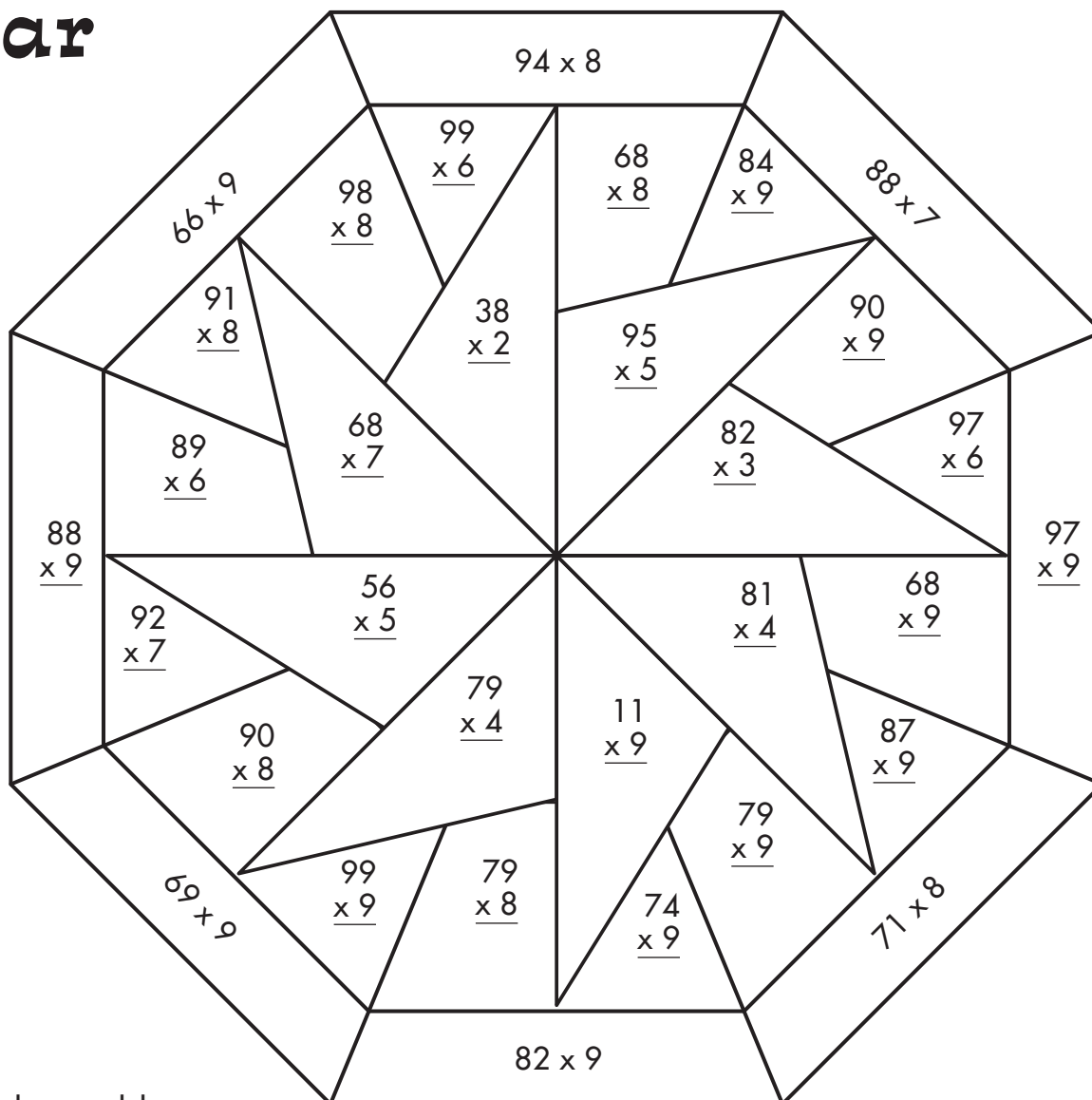
<b>MATH SKILL</b>	<b>TITLE OF ACTIVITY</b>	<b>PAGE NUMBER</b>
Multiplication: Basic Facts	The Great Pyramid	44
Multiplication: Two Digits x One Digit	Picture-Perfect Star	8
Multiplication: Two Digits x One Digit	The North Star	25
Multiplication: Two Digits x One Digit	A Tornado of Pentagons	45
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Multiplication: Three Digits x One Digit	Purple Blossoms	10
Multiplication: Three Digits x One Digit	Weaving Webs	27
Multiplication: Three Digits x Two Digits	Into the Abyss	11
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Decimals: Multiplication	Queen's Gem	60
Decimals: Decimals $\div$ Whole Numbers	Cosmic Blast	41
Decimals: Decimals $\div$ Whole Numbers	King's Treasure Chest	61



# Picture-Perfect Star



Solve the problems.

Then color the design. Here's how:

1. Choose four colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the puzzle.

If the answer is between 1 and 200, color the shape \_\_\_\_\_.

If the answer is between 201 and 500, color the shape \_\_\_\_\_.

If the answer is between 501 and 700, color the shape \_\_\_\_\_.

If the answer is between 701 and 900, color the shape \_\_\_\_\_.

*Taking It Further:* Fill in the missing numbers.

a.  $88 \times \underline{\quad} = 792$

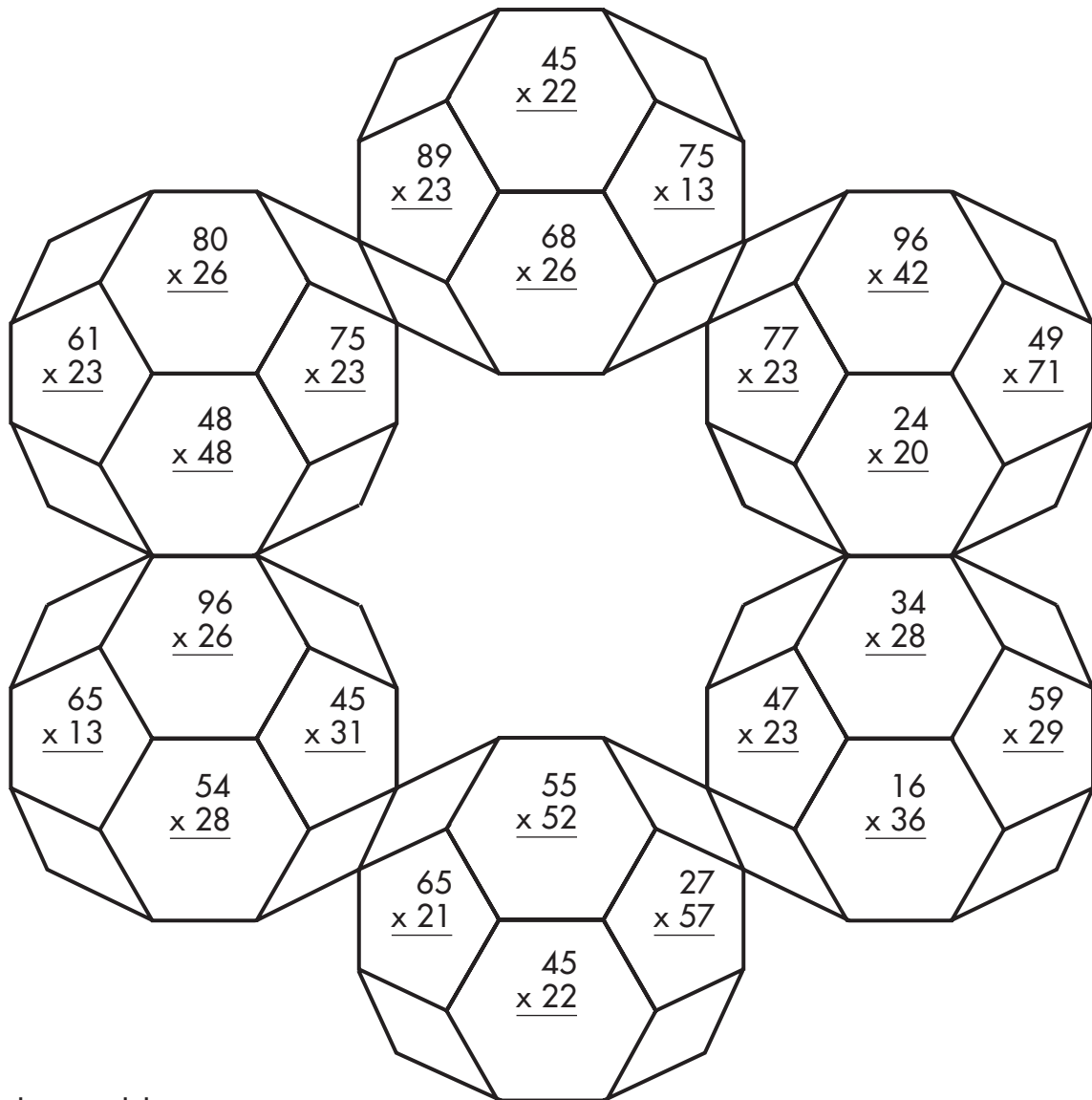
b.  $56 \times \underline{\quad} = 392$

c.  $41 \times \underline{\quad} = 246$





# Soccer Balls



Solve the problems.

Then color the design. Here's how:

1. Choose two colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the answer is even, color the shape \_\_\_\_\_.

If the answer is odd, color the shape \_\_\_\_\_.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:*

Fill in the missing numbers.

$$\begin{array}{r} \text{a. } 49 \\ \times 2 \square \\ \hline 1,078 \end{array}$$

$$\begin{array}{r} \text{b. } 78 \\ \times \square 9 \\ \hline 1,482 \end{array}$$

$$\begin{array}{r} \text{c. } 55 \\ \times 3 \square \\ \hline 1,925 \end{array}$$

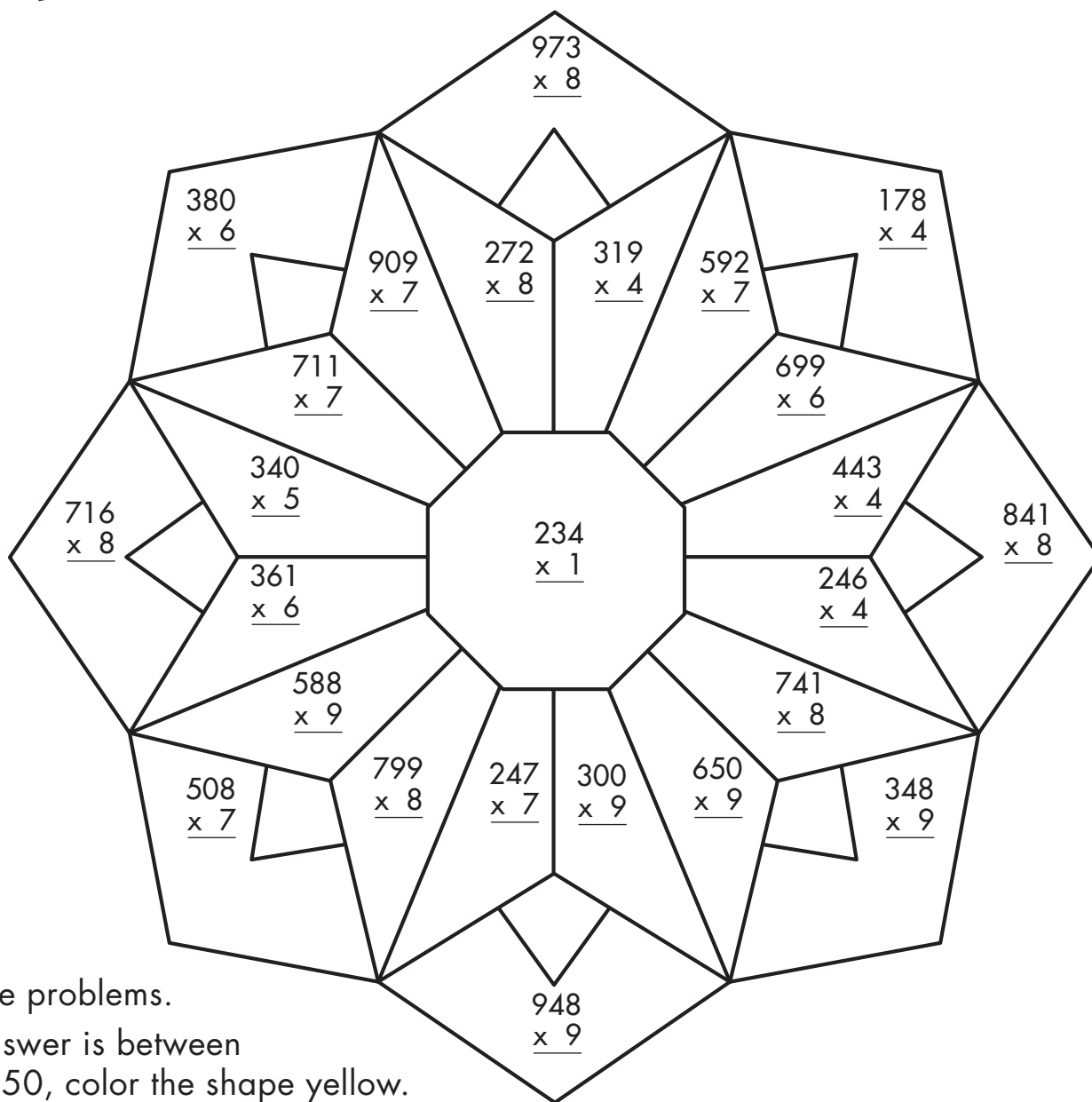
Name \_\_\_\_\_

# MULTIPLICATION

Three Digits x One Digit



# Purple Blossoms



Solve the problems.

If the answer is between 1 and 250, color the shape yellow.

If the answer is between 251 and 4000, color the shape purple.

If the answer is between 4,001 and 9,000, color the shape pink.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* What number am I?

I am an even number.

I have three digits and they are all the same.

If you multiply me by 4, all of the digits in the product are 8.

What number am I? \_\_\_\_\_



# Into the Abyss

$\begin{array}{r} 618 \\ \times 99 \\ \hline \end{array}$	$\begin{array}{r} 571 \\ \times 33 \\ \hline \end{array}$	$\begin{array}{r} 898 \\ \times 69 \\ \hline \end{array}$	$\begin{array}{r} 541 \\ \times 26 \\ \hline \end{array}$		
$\begin{array}{r} 318 \\ \times 49 \\ \hline \end{array}$	$\begin{array}{r} 399 \\ \times 59 \\ \hline \end{array}$	$\begin{array}{r} 690 \\ \times 80 \\ \hline \end{array}$	$\begin{array}{r} 412 \\ \times 69 \\ \hline \end{array}$	$\begin{array}{r} 798 \\ \times 80 \\ \hline \end{array}$	$\begin{array}{r} 511 \\ \times 99 \\ \hline \end{array}$
$\begin{array}{r} 888 \\ \times 79 \\ \hline \end{array}$			$\begin{array}{r} 618 \\ \times 49 \\ \hline \end{array}$	$\begin{array}{r} 378 \\ \times 11 \\ \hline \end{array}$	
$\begin{array}{r} 578 \\ \times 79 \\ \hline \end{array}$			$\begin{array}{r} 500 \\ \times 49 \\ \hline \end{array}$	$\begin{array}{r} 776 \\ \times 85 \\ \hline \end{array}$	
$\begin{array}{r} 178 \\ \times 39 \\ \hline \end{array}$	$\begin{array}{r} 701 \\ \times 79 \\ \hline \end{array}$	$\begin{array}{r} 438 \\ \times 29 \\ \hline \end{array}$	$\begin{array}{r} 778 \\ \times 69 \\ \hline \end{array}$		
$\begin{array}{r} 200 \\ \times 16 \\ \hline \end{array}$	$\begin{array}{r} 859 \\ \times 84 \\ \hline \end{array}$				
$\begin{array}{r} 868 \\ \times 89 \\ \hline \end{array}$	$\begin{array}{r} 688 \\ \times 79 \\ \hline \end{array}$	$\begin{array}{r} 373 \\ \times 36 \\ \hline \end{array}$	$\begin{array}{r} 912 \\ \times 99 \\ \hline \end{array}$	$\begin{array}{r} 494 \\ \times 29 \\ \hline \end{array}$	$\begin{array}{r} 526 \\ \times 54 \\ \hline \end{array}$
$\begin{array}{r} 578 \\ \times 19 \\ \hline \end{array}$	$\begin{array}{r} 914 \\ \times 78 \\ \hline \end{array}$	$\begin{array}{r} 478 \\ \times 61 \\ \hline \end{array}$	$\begin{array}{r} 608 \\ \times 76 \\ \hline \end{array}$		

Solve the problems.

If the answer is between 1 and 45,000, color the shape black.

If the answer is between 45,001 and 99,000, color the shape grey.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:*

What three-digit number when multiplied by 11 gives the product 3663?



# Honeycomb

Two Digits  $\div$  One Digit With Remainder

Solve the problems.

If the answer has a remainder between 1 and 4, color the shape black.

If the answer has a remainder between 5 and 8, color the shape red.

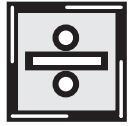
Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Fill in the missing numbers.

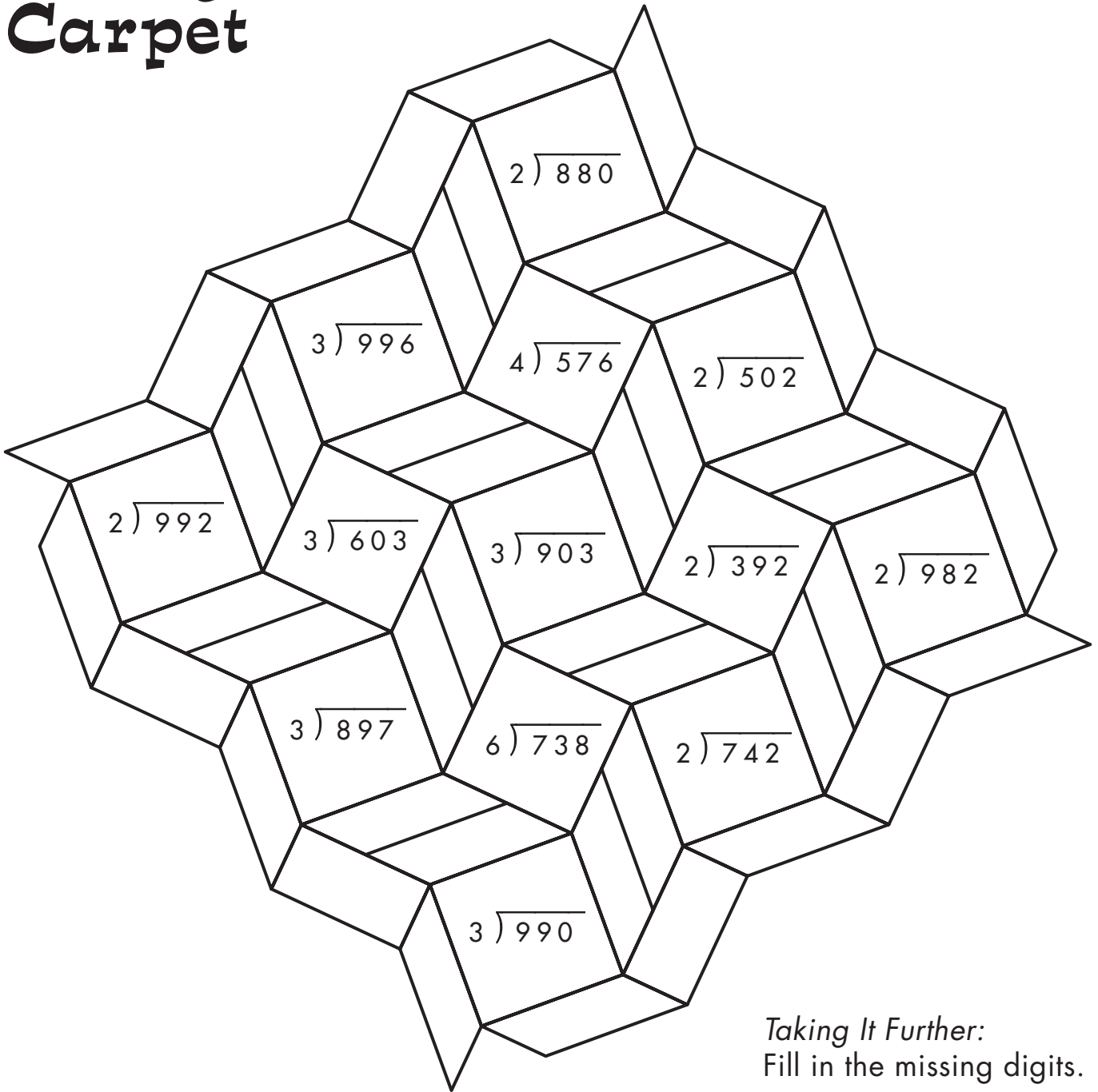
a.  $\underline{\quad} \div 9 = 2 \text{ R } 8$

b.  $\underline{\quad} \div 7 = 7 \text{ R } 4$

c.  $\underline{\quad} \div 4 = 5 \text{ R } 1$



# Flying Carpet



*Taking It Further:*  
Fill in the missing digits.

$$\begin{array}{r}
 432 \\
 2 \overline{) 8 \square \square} \\
 \underline{- 8} \phantom{00} \\
 06 \\
 \underline{- 6} \\
 04 \\
 \underline{- 4} \\
 0
 \end{array}$$

Solve the problems.

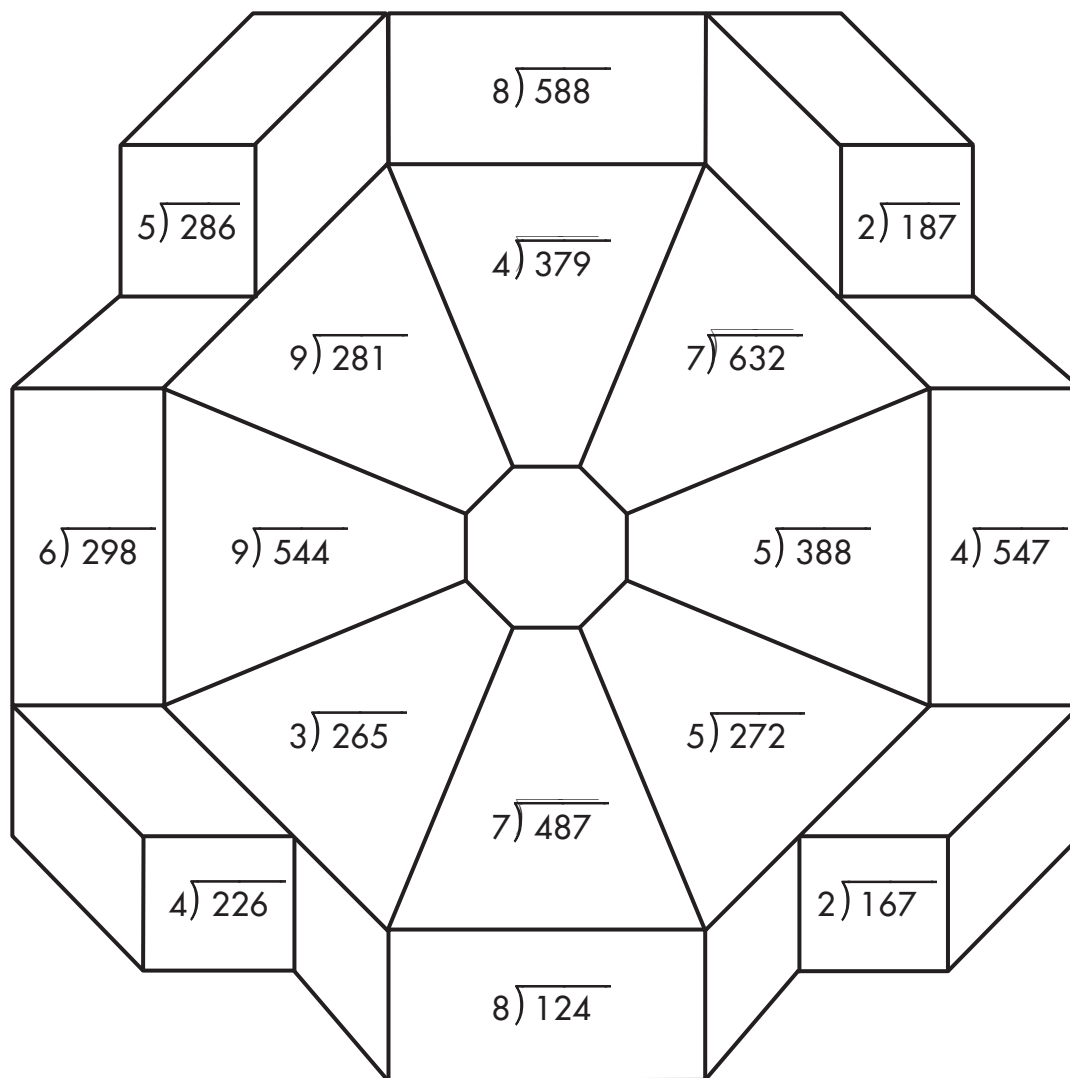
If the answer is between 100 and 250,  
color the shape red.

If the answer is between 251 and 900,  
color the shape blue.

Finish the design by coloring the other  
shapes with the colors of your choice.



# Octagon Remainders



Solve the problems. Then color the design. Here's how:

1. Choose three colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the remainder is 1 or 2, color the shape \_\_\_\_\_.

If the remainder is 3 or 4, color the shape \_\_\_\_\_.

If the remainder is 5 or 6, color the shape \_\_\_\_\_.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Write four numbers greater than 100 that when divided by 8 have four different remainders.



# Fourteen Boxes

Solve the problems.

If the remainder is 1, 2, 3, 4, or 5, color the shape pink.

If the remainder is 6, 7, 8, 9, or 10, color the shape green.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Fill in the missing numbers in the dividends below.

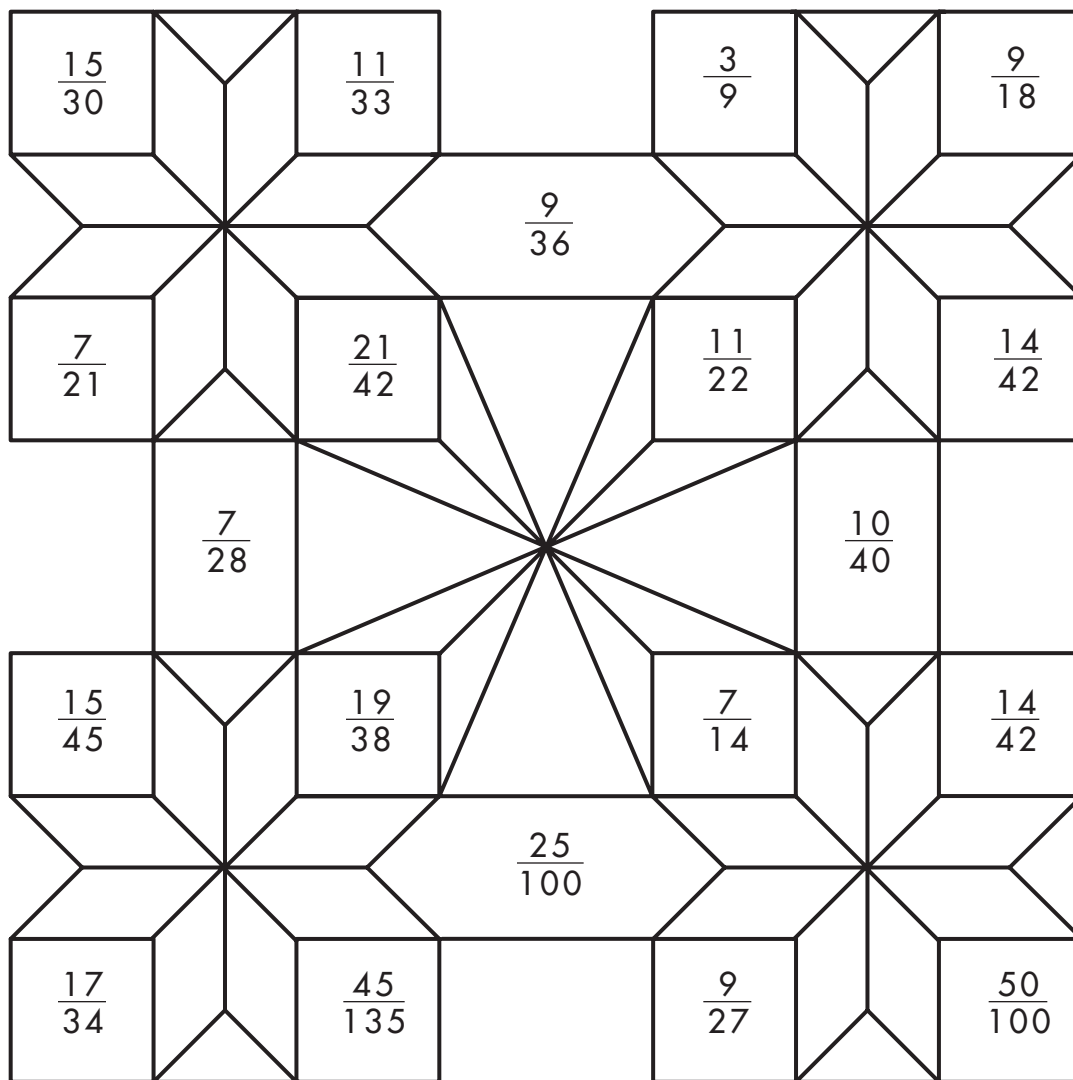
$$\begin{array}{r} 10 \text{ R}27 \\ 57 \overline{) 59 \_} \end{array}$$

$$\begin{array}{r} 21 \text{ R}7 \\ 32 \overline{) 6 \_ 9} \end{array}$$

$$\begin{array}{r} 10 \text{ R}19 \\ 68 \overline{) \_ 9 9} \end{array}$$



# Spring Flowers



Rename the fractions.

If the fraction equals  $\frac{1}{2}$ , color the shape orange.

If the fraction equals  $\frac{1}{3}$ , color the shape yellow.

If the fraction equals  $\frac{1}{4}$ , color the shape blue.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Complete the squares so that each box adds up to 1. Use the following fractions once:  $\frac{8}{14}$ ,  $\frac{4}{14}$ , and  $\frac{1}{14}$ .

a.

$\frac{1}{7}$	$\frac{1}{7}$
$\frac{6}{14}$	

b.

$\frac{1}{2}$	$\frac{2}{14}$
	$\frac{4}{14}$

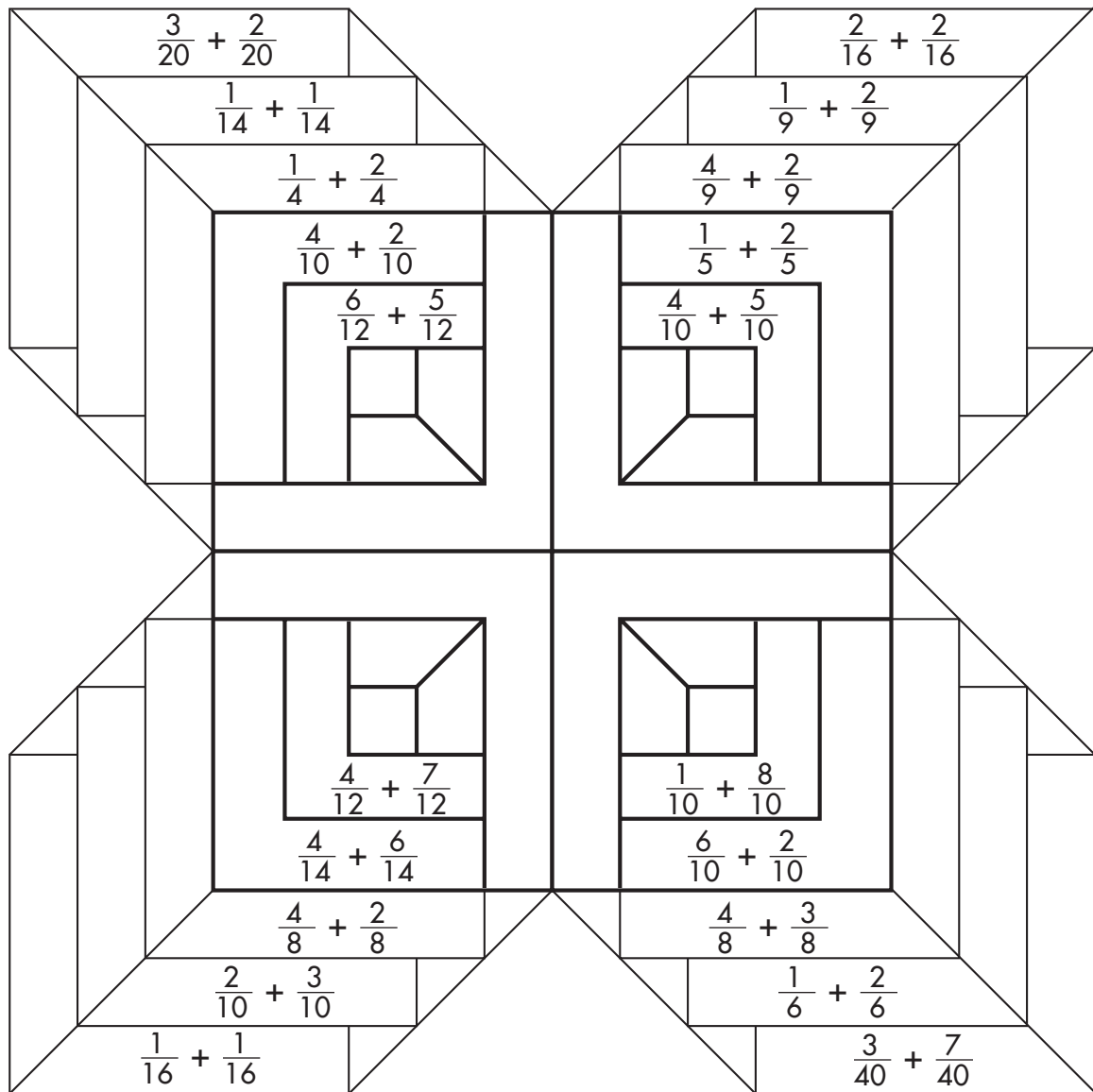
c.

	$\frac{2}{14}$
$\frac{1}{7}$	$\frac{1}{7}$





# Into Infinity



Solve the problems. Then rename the answers in lowest terms.

If the answer is  $\frac{1}{4}$ ,  $\frac{1}{8}$ , or  $\frac{1}{16}$ , color the shape purple.

If the answer is  $\frac{1}{2}$ ,  $\frac{1}{3}$ , or  $\frac{1}{7}$ , color the shape blue.

If the answer is  $\frac{2}{3}$ ,  $\frac{3}{4}$ , or  $\frac{7}{8}$ , color the shape green.

If the answer is  $\frac{3}{5}$ ,  $\frac{4}{5}$ , or  $\frac{5}{7}$ , color the shape yellow.

If the answer is  $\frac{9}{10}$  or  $\frac{11}{12}$ , color the shape red.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Fill in the missing fractions.

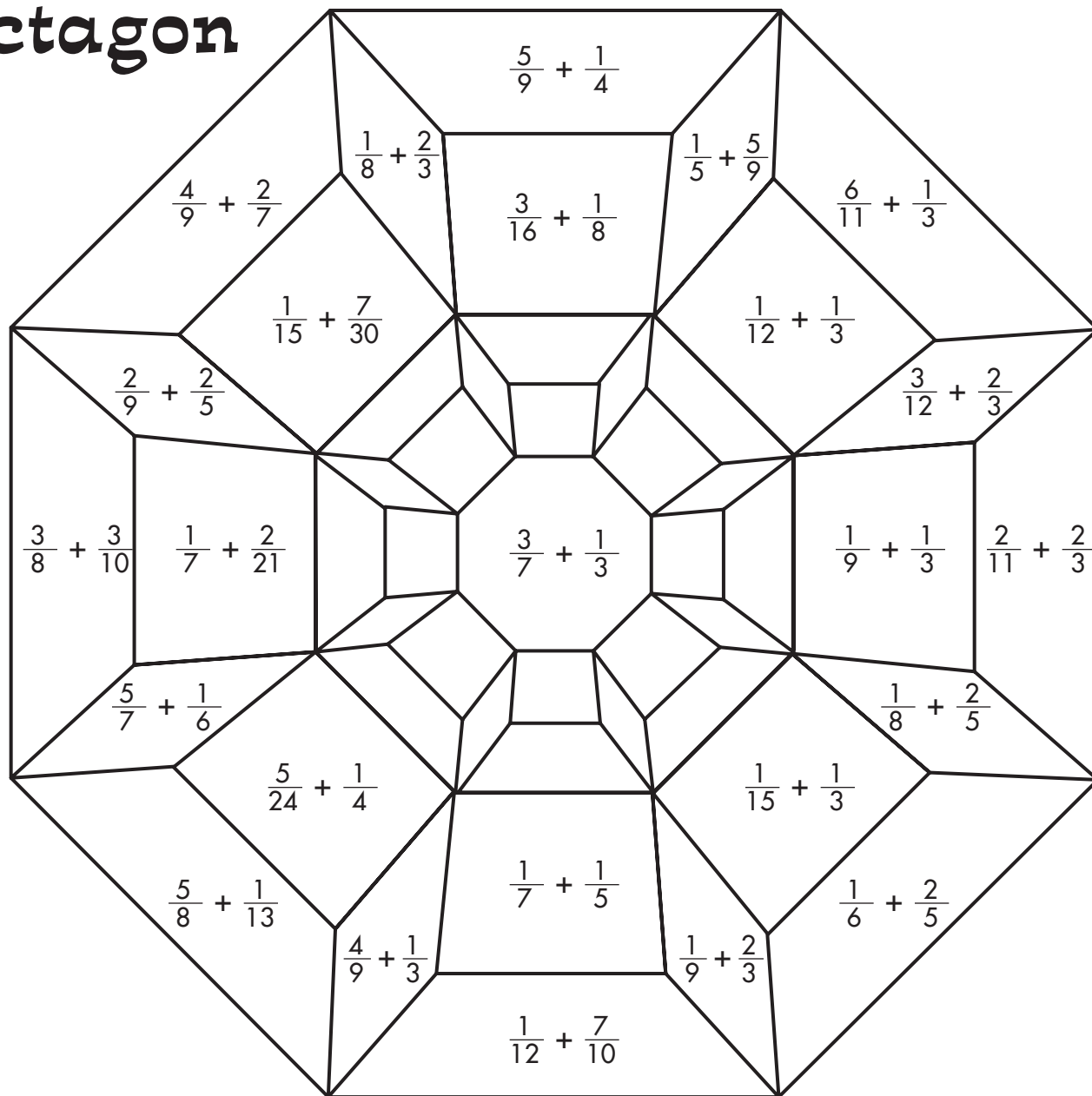
a.  $\frac{7}{20} + \underline{\quad} = \frac{11}{20}$

b.  $\frac{1}{8} + \underline{\quad} = \frac{1}{2}$

c.  $\frac{4}{7} + \underline{\quad} = 1$



# Stained-Glass Octagon



Solve the problems. Then rename the answers in lowest terms.

If the answer is  $\frac{1}{2}$  or greater, color the shape green.

If the answer is less than  $\frac{1}{2}$ , color the shape orange.

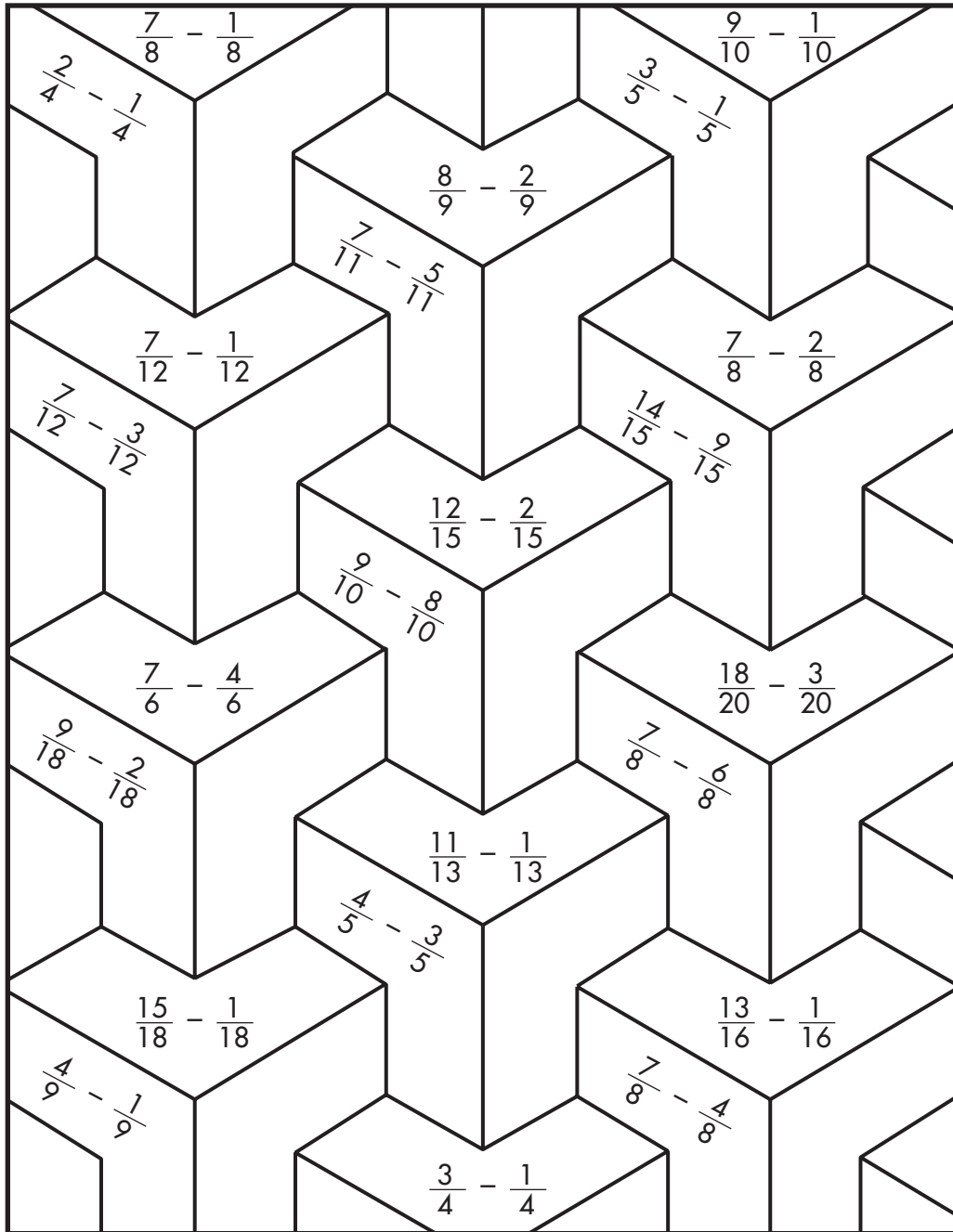
Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Complete the magic square so that each row and column adds up to 1. Rename any fractions in lowest terms.

	$\frac{1}{4}$	$\frac{1}{2}$
$\frac{5}{20}$		
$\frac{4}{8}$	$\frac{4}{16}$	$\frac{2}{8}$



# Trefoil



Solve the problems. Rename the answers in lowest terms.

If the answer is  $\frac{1}{2}$  or greater, color the shape red.

If the answer is less than  $\frac{1}{2}$ , color the shape blue.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Fill in the missing fractions.

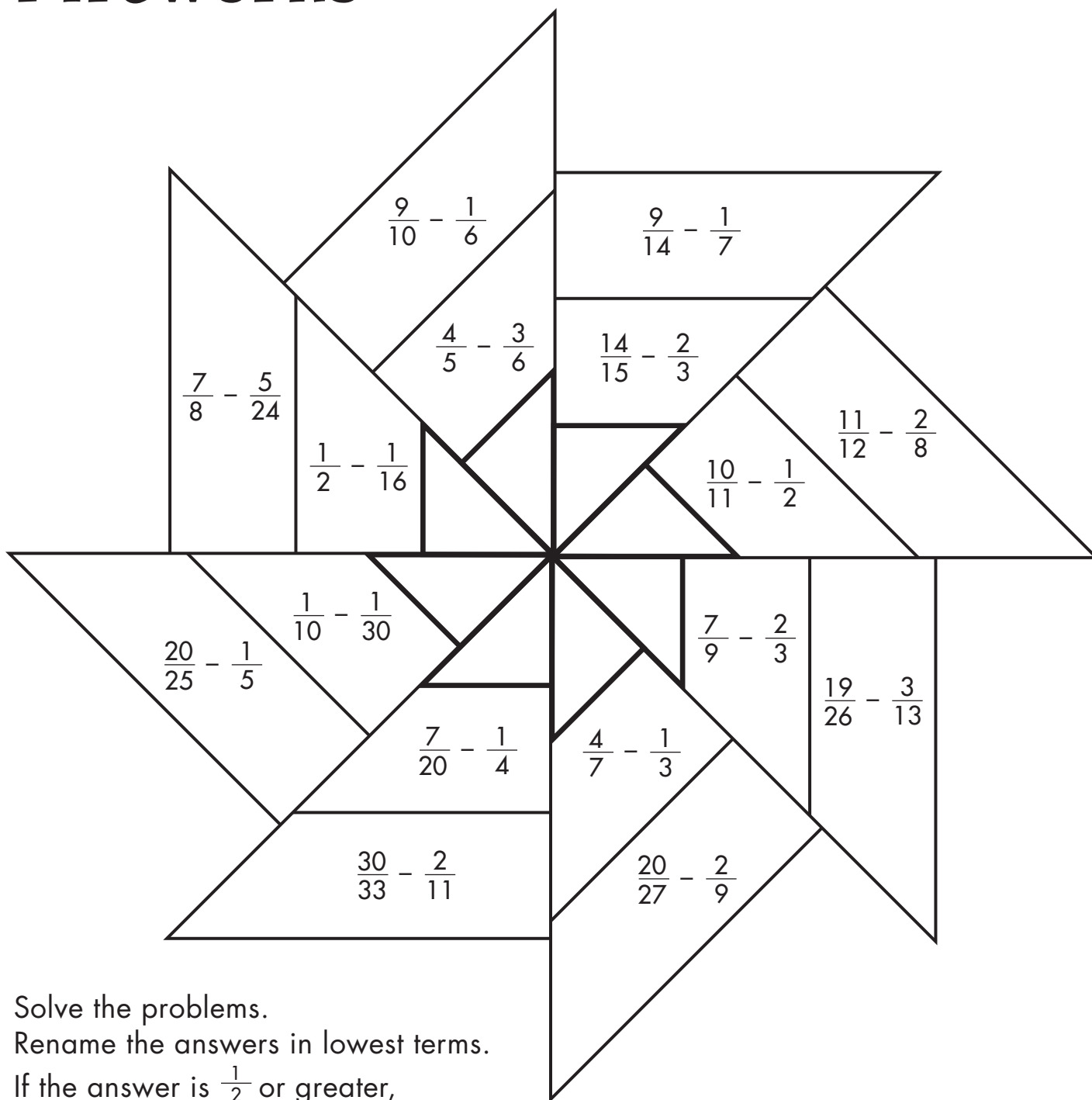
a.  $\frac{18}{20} - \underline{\quad} = \frac{17}{20}$

b.  $\frac{8}{9} - \underline{\quad} = \frac{2}{3}$

c.  $\frac{4}{7} - \underline{\quad} = 0$



# Fireworks



Solve the problems.

Rename the answers in lowest terms.

If the answer is  $\frac{1}{2}$  or greater,  
color the shape yellow.

If the answer is less than  $\frac{1}{2}$ , color the shape green.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Fill in the missing numbers in the problems below. Rename the answers in lowest terms.

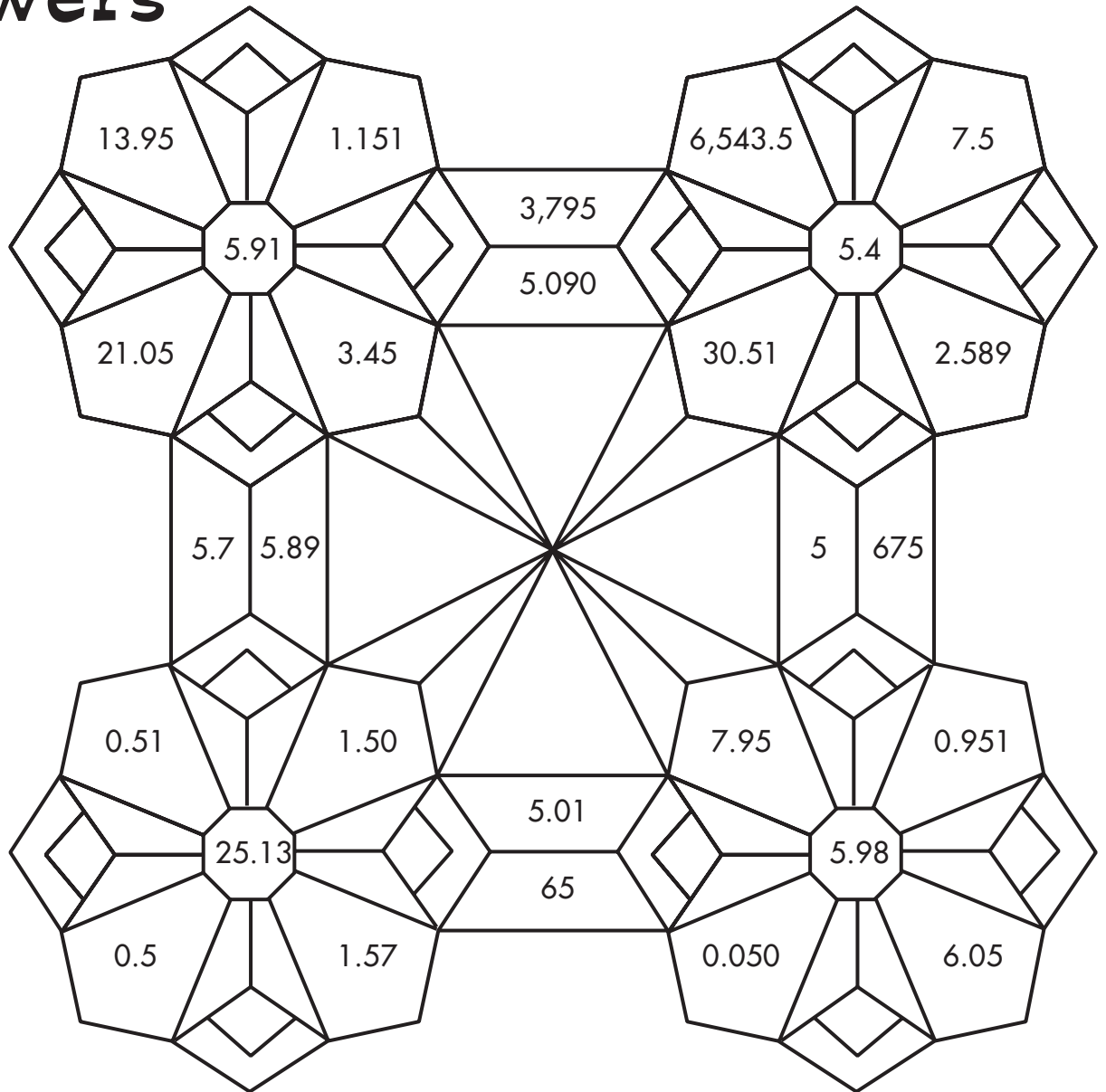
a.  $\frac{3}{7} - \underline{\quad} = \frac{8}{35}$

b.  $\underline{\quad} - \frac{2}{3} = \frac{3}{14}$

c.  $\frac{9}{10} - \underline{\quad} = \frac{1}{3}$



# Kaleidoscope of Flowers



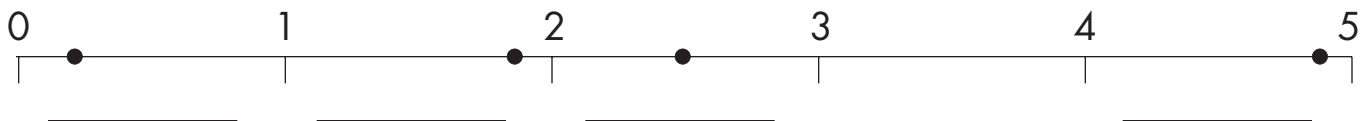
If the number has a 5 in the ones place, color the shape green.

If the number has a 5 in the tenths place, color the shape pink.

If the number has a 5 in the hundredths place, color the shape yellow.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Place the following decimals in the correct places on the lines below the dots: 4.9, 1.7, 2.5, and 0.2.



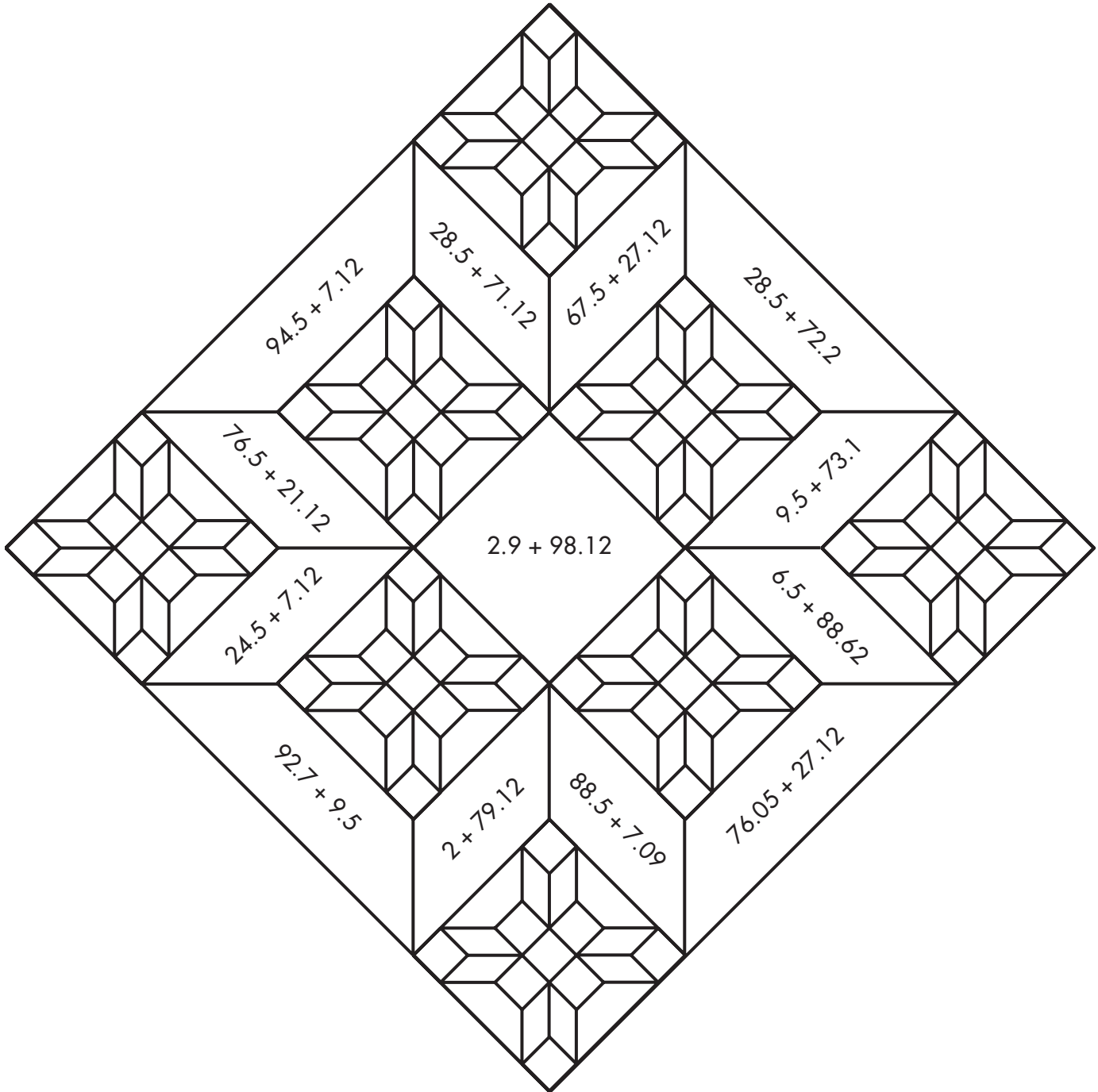
Name \_\_\_\_\_

**DECIMALS**

Addition



# Dottie's Quilt



Solve the problems.

If the answer is 100 or greater, color the shape pink.

If the answer is less than 100, color the shape green.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking It Further:* Rewrite the problem below on the back of this paper and solve.

$$2.99 + 14.1 + 787.02 + 16 = \underline{\hspace{2cm}}$$



# Lantern Glow

Solve the problems.

If the number in the tenths place is 0, 1, 2, or 3, color the shape green.

If the number in the tenths place is 4 or 5, color the shape red.

If the number in the tenths place is 6, 7, 8, or 9, color the shape pink.

Finish the design by coloring the other shapes with the colors of your choice.

*Taking it Further:* Rewrite these problems on the back of this paper and solve.

a.  $3.4 - 1.009 = \underline{\quad}$

b.  $79.03 - 9.4 = \underline{\quad}$

c.  $81.02 - 4.99 = \underline{\quad}$

d.  $7.9 - 4.012 = \underline{\quad}$

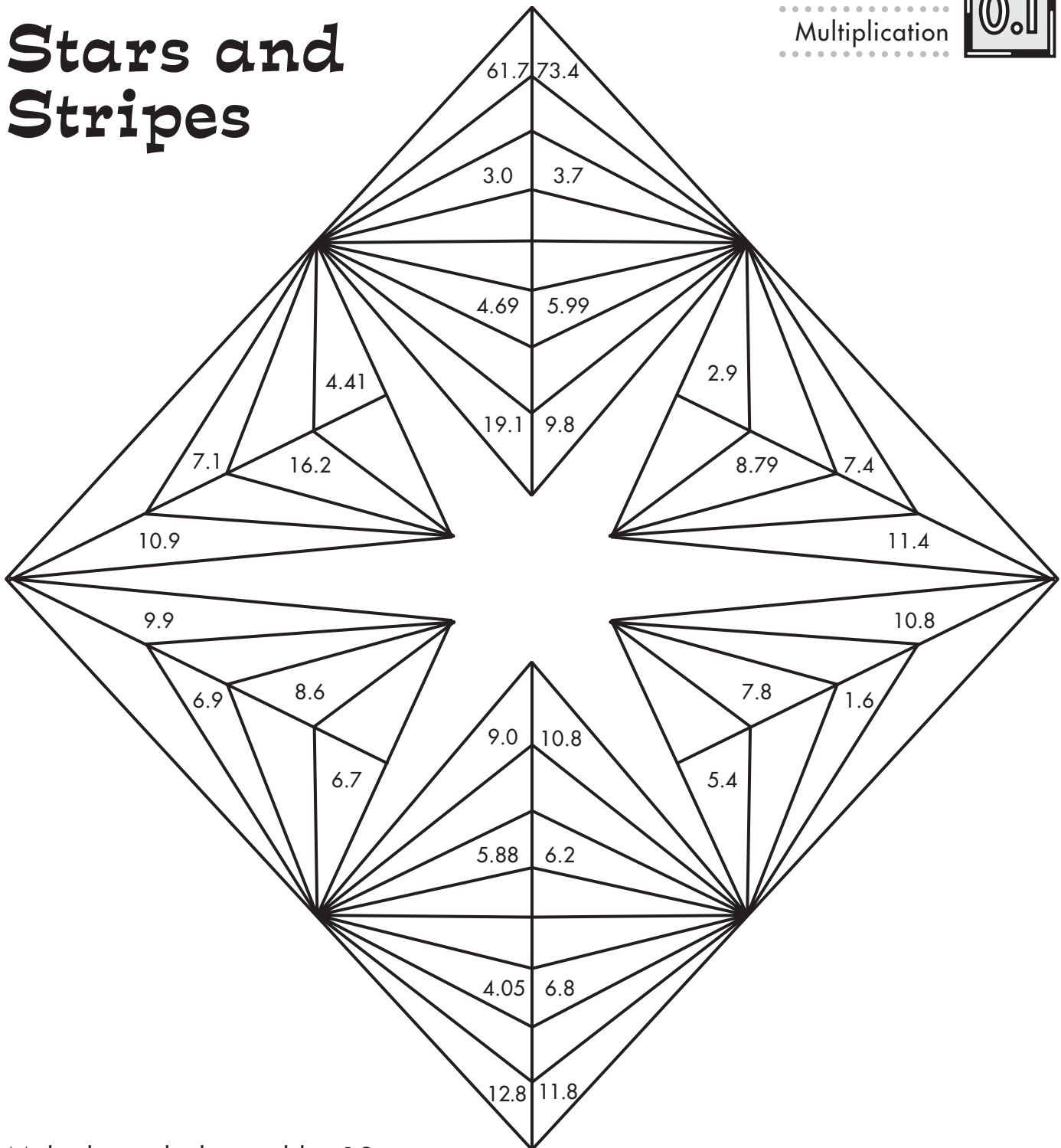
Name \_\_\_\_\_

**DECIMALS**

Multiplication



# Stars and Stripes



Multiply each decimal by 13.

If the product is greater than 100, color the shape red.

If the product is less than 100, color the shape blue.

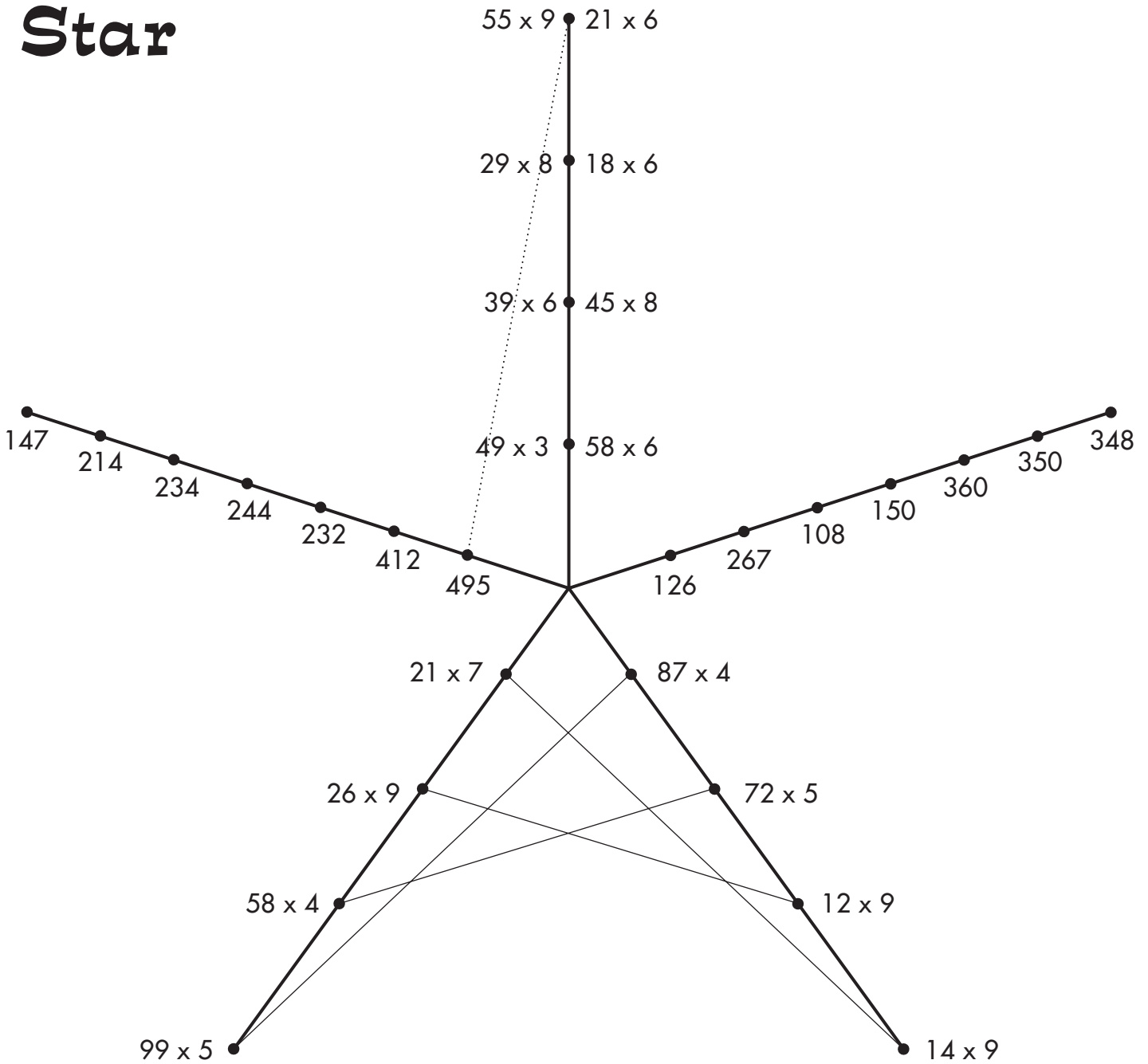
Finish the design by coloring the rest of the shapes with the colors of your choice.

*Taking It Further:* Cameron uses 1.5 candy bars to make one batch of Chocolate Nutty Dream Bars. If she makes 5 batches of Chocolate Nutty Dream Bars, how many candy bars will she need?





# The North Star



Solve the problems. Then connect the dot beside each problem to the dot beside its answer. One line has been drawn for you. Some dots will not be used.

*Taking It Further:*  
Multiply across and add down to complete the puzzles.

15	x	9	=	
+				+
15	x	5	=	
=				=
	x	7	=	

34	x	6	=	
+				+
21	x	6	=	
=				=
	x	6	=	



# In the Wink of an Eye

$24 \times 20$     $57 \times 73$     $98 \times 34$     $23 \times 13$   
 $37 \times 11$     $26 \times 35$     $30 \times 42$     $21 \times 61$   
 $23 \times 45$     $62 \times 12$     $44 \times 20$     $87 \times 33$   
 $25 \times 17$     $95 \times 36$     $79 \times 12$     $81 \times 14$   
 $25 \times 46$     $83 \times 17$     $55 \times 13$     $58 \times 42$   
 $49 \times 52$     $71 \times 17$     $25 \times 13$     $27 \times 34$   
 $27 \times 34$     $53 \times 73$     $16 \times 34$     $41 \times 23$     $72 \times 32$     $61 \times 11$     $60 \times 33$

Solve the problems.

If the answer is even, connect the dot beside each problem to the heart on the right- and left-hand sides of the circle. If the answer is odd, do nothing.

Two lines have been drawn for you.

*Taking It Further:* Fill in each missing number in these equations.

a. 
$$\begin{array}{r} 16 \\ \times 1\boxed{\phantom{0}} \\ \hline 304 \end{array}$$

b. 
$$\begin{array}{r} 2\boxed{\phantom{0}} \\ \times 33 \\ \hline 891 \end{array}$$

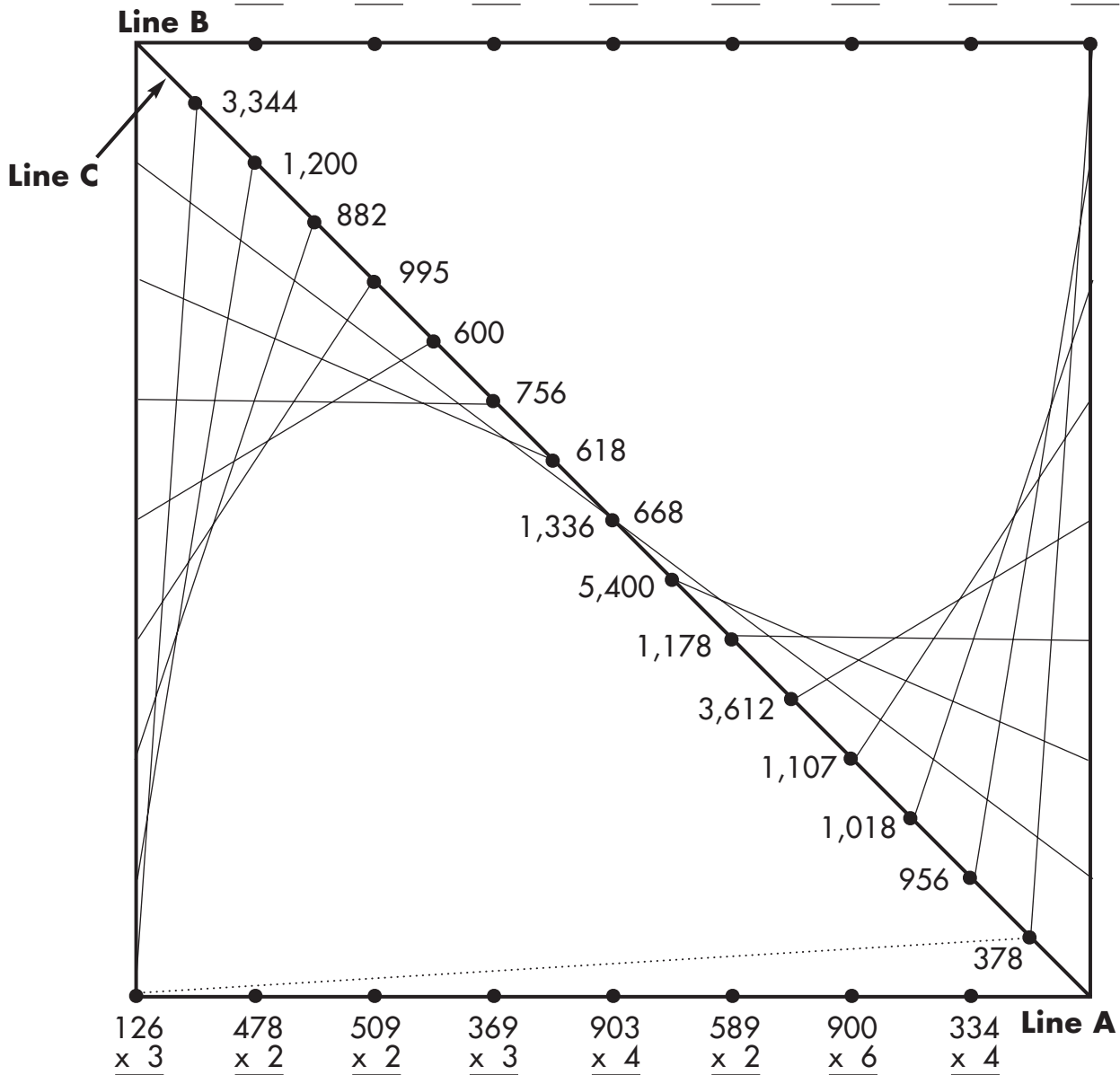
c. 
$$\begin{array}{r} \boxed{\phantom{0}}8 \\ \times 22 \\ \hline 616 \end{array}$$

d. 
$$\begin{array}{r} 13 \\ \times \boxed{\phantom{0}}4 \\ \hline 312 \end{array}$$



# Weaving Webs

$\begin{array}{r} 167 \\ \times 4 \\ \hline \end{array}$     
  $\begin{array}{r} 309 \\ \times 2 \\ \hline \end{array}$     
  $\begin{array}{r} 252 \\ \times 3 \\ \hline \end{array}$     
  $\begin{array}{r} 150 \\ \times 4 \\ \hline \end{array}$     
  $\begin{array}{r} 199 \\ \times 5 \\ \hline \end{array}$     
  $\begin{array}{r} 126 \\ \times 7 \\ \hline \end{array}$     
  $\begin{array}{r} 300 \\ \times 4 \\ \hline \end{array}$     
  $\begin{array}{r} 418 \\ \times 8 \\ \hline \end{array}$



Solve the problems.

Then connect the dot above each problem on Line A to the dot beside its answer on Line C. The first line has been drawn for you.

Connect the dot below each problem on Line B to the dot beside its answer on Line C.

*Taking It Further:* Fill in the missing numbers so that each equation equals 1,000.

a.  $\begin{array}{r} 250 \\ \times \square \\ \hline 1,000 \end{array}$

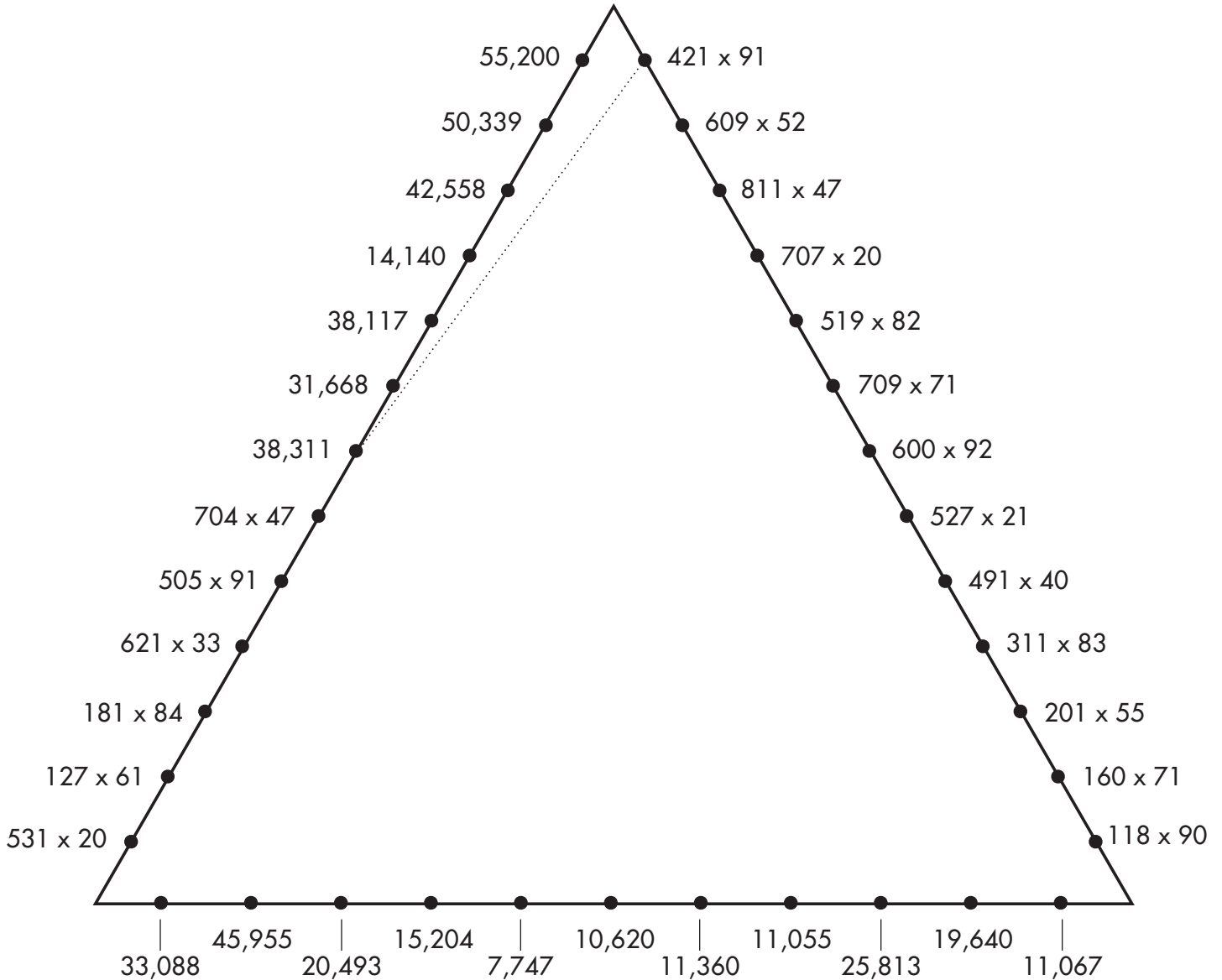
b.  $\begin{array}{r} 200 \\ \times \square \\ \hline 1,000 \end{array}$

c.  $\begin{array}{r} 100 \\ \times \square \\ \hline 1,000 \end{array}$

d.  $\begin{array}{r} 125 \\ \times \square \\ \hline 1,000 \end{array}$



# Goose Egg



Solve the problems.

Then connect the dot beside each problem to the dot beside its answer.

One line has been drawn for you.

*Taking It Further:* Place one of the following numbers in each box below so that each problem is correct: 41, 37, 42

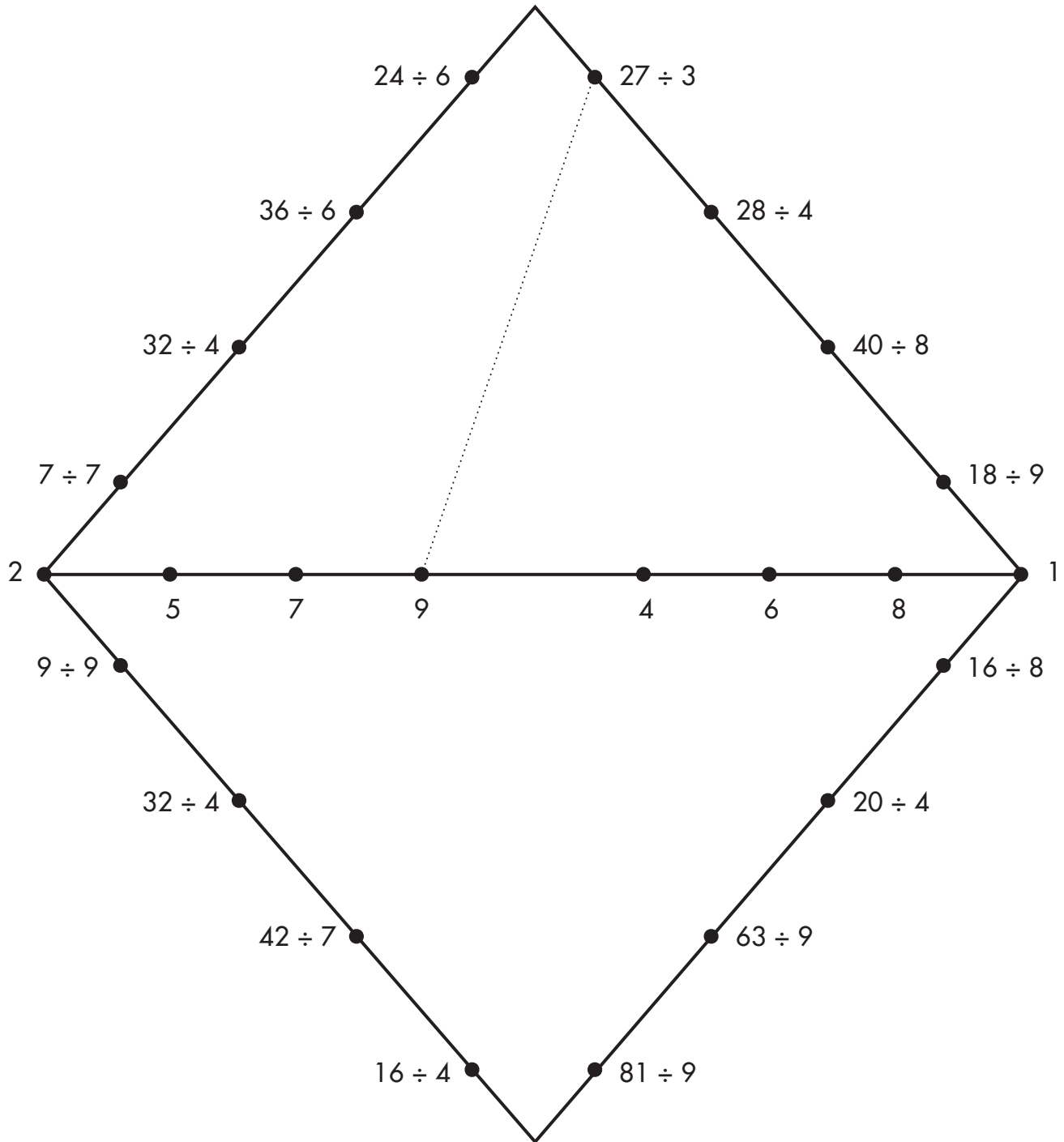
a. 
$$\begin{array}{r} 175 \\ \times \square \\ \hline 6,475 \end{array}$$

b. 
$$\begin{array}{r} 393 \\ \times \square \\ \hline 16,113 \end{array}$$

c. 
$$\begin{array}{r} 804 \\ \times \square \\ \hline 49,848 \end{array}$$



# Mirror Image



Solve the problems.

Then connect the dot beside each problem to the dot beside its answer. One line has been drawn for you.

*Taking It Further:* Fill in the missing numbers in the patterns below.

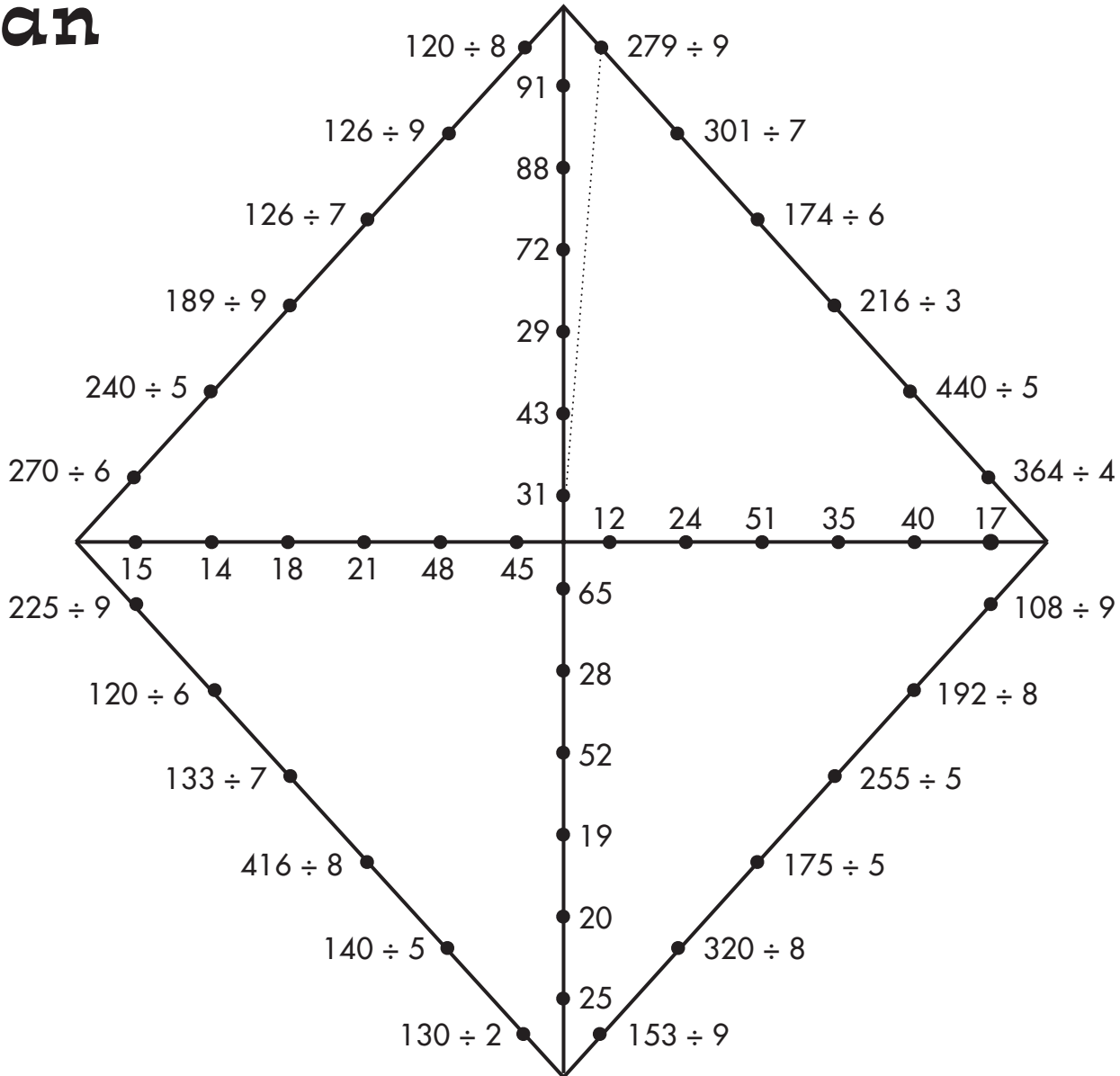
81, 72, 63, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 9

63, 56, 49, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, 7



# Whirling Fan

Three Digits ÷ One Digit With No Remainder



Solve the problems.

Then connect the dot beside each problem to the dot beside its answer. One line has been drawn for you.

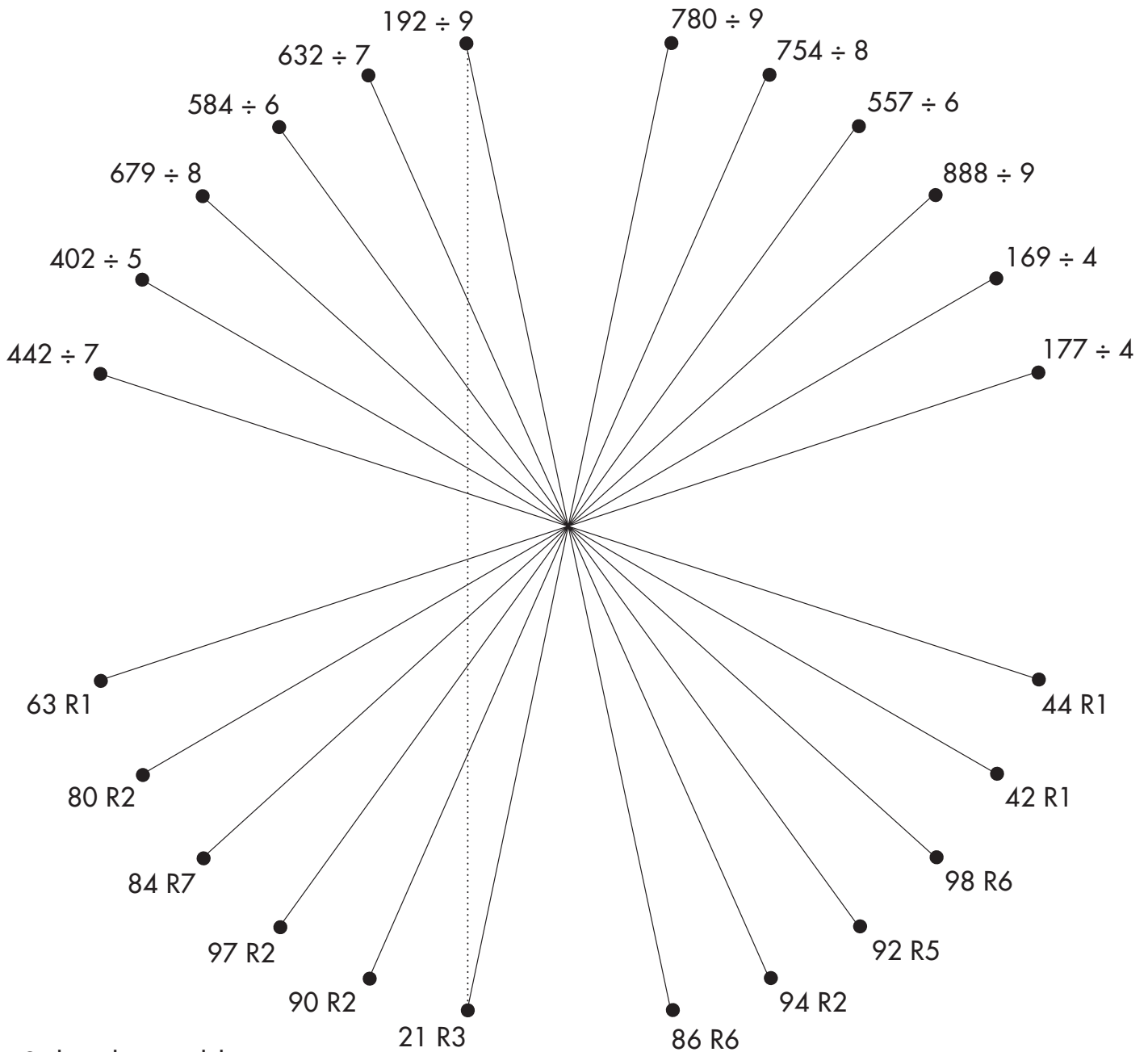
*Taking It Further:* Divide across and add down to complete the puzzles.

155	÷	5	=	
+				+
130	÷	5	=	
=				=
	÷	5	=	

282	÷	6	=	
+				+
354	÷	6	=	
=				=
	÷	6	=	



# Into the Black Hole



Solve the problems.

Then connect the dot beside each problem to the dot beside its answer. One line has been drawn for you.

*Taking It Further:* In the problem below, what is the smallest possible dividend? (Hint: You must have a large enough dividend to have a remainder of at least 1.)

What is the greatest possible dividend?

$$\begin{array}{r}
 29 \text{ R} \square \\
 \hline
 9 \overline{) \square \square \square}
 \end{array}$$

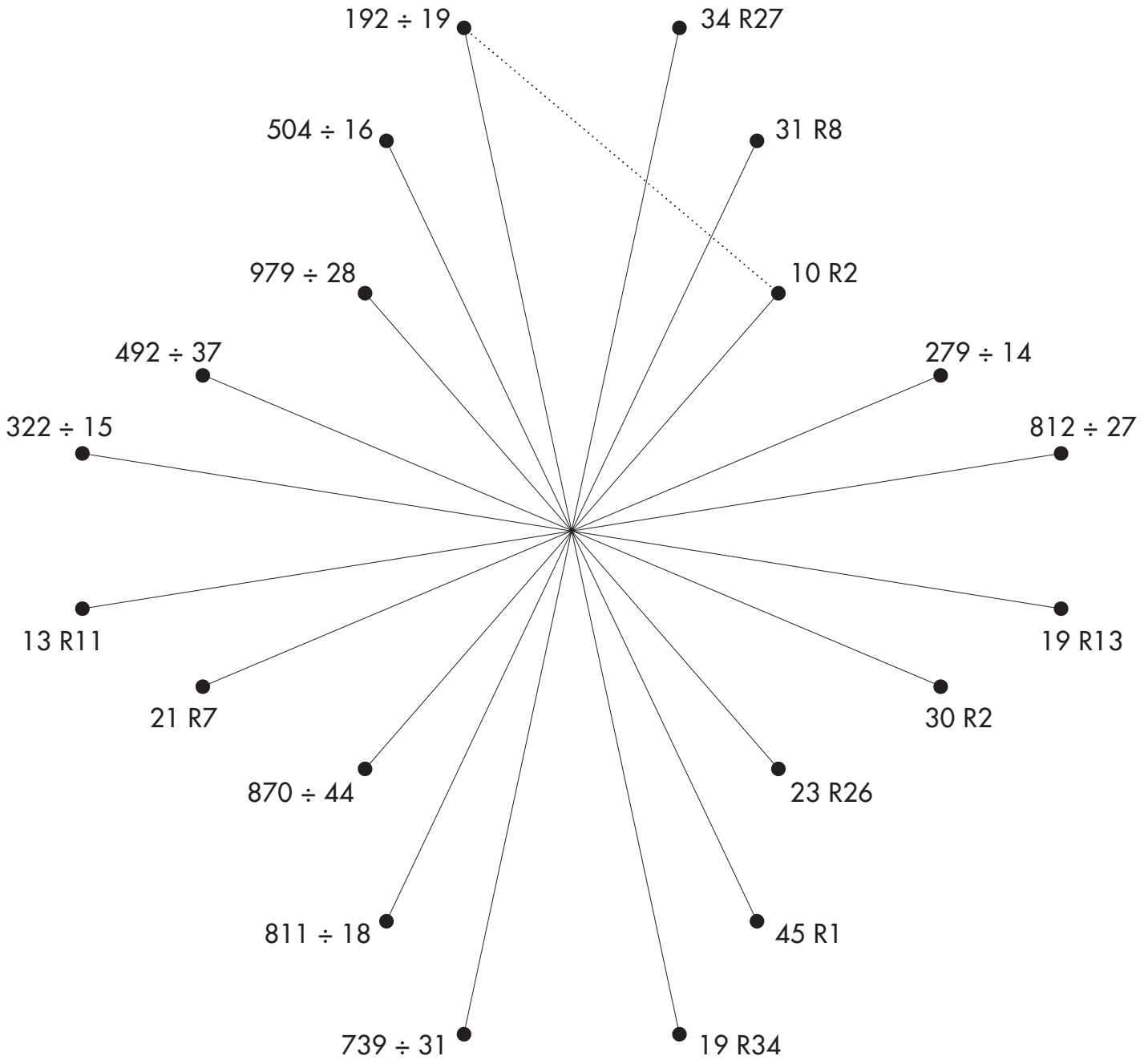
Name \_\_\_\_\_

# DIVISION



Three Digits ÷ Two Digits With Remainder

## Gift Bow



Solve the problems.

Then connect the dot beside each problem to the dot beside its answer.  
One line has been drawn for you.

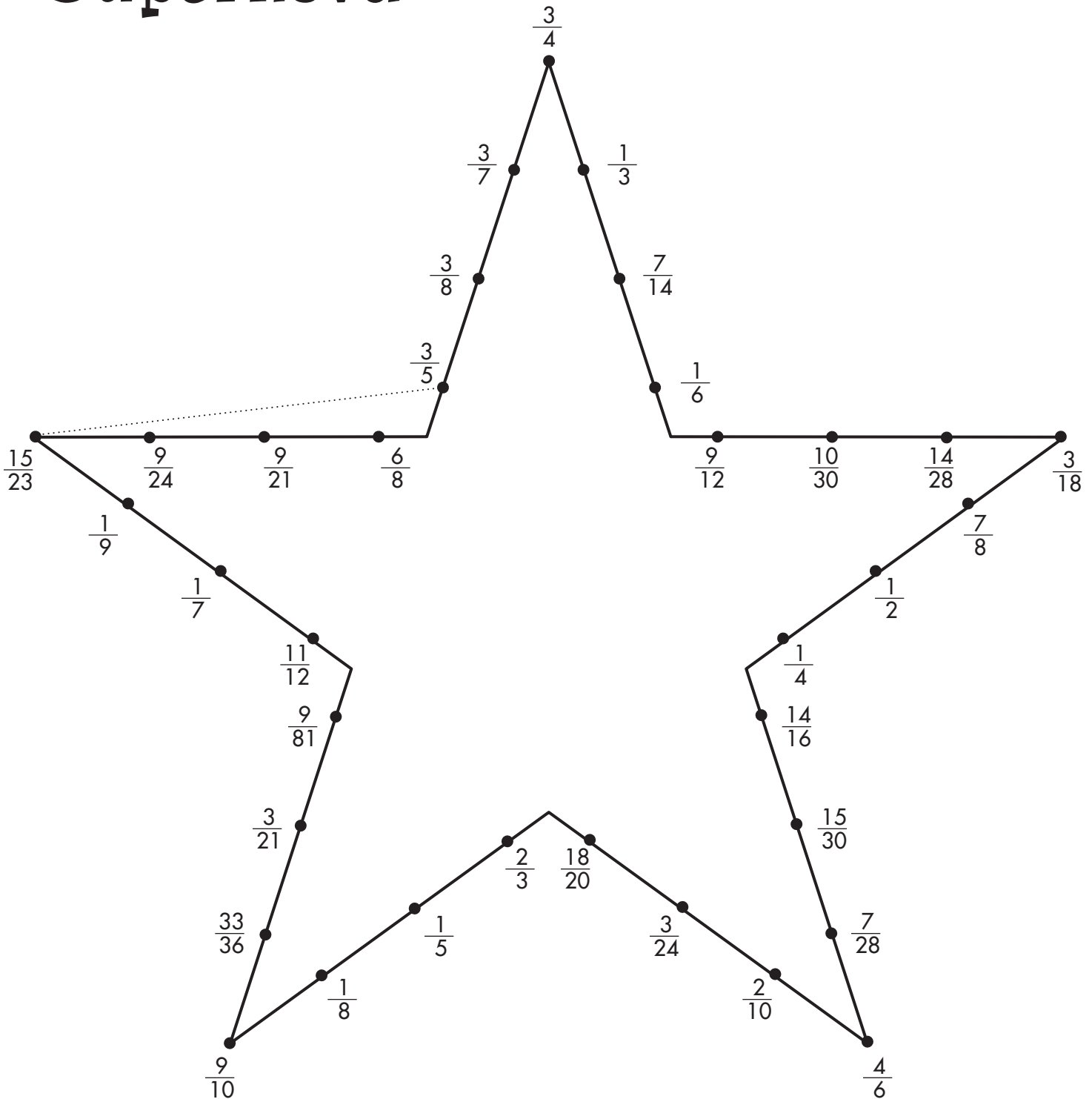
*Taking It Further:* Fill in the boxes with any numbers you choose. Your answer must have a remainder of 2.

$$\begin{array}{r} \square\square\square \text{ R}2 \\ \square\square \overline{) \square\square\square} \end{array}$$





# Supernova



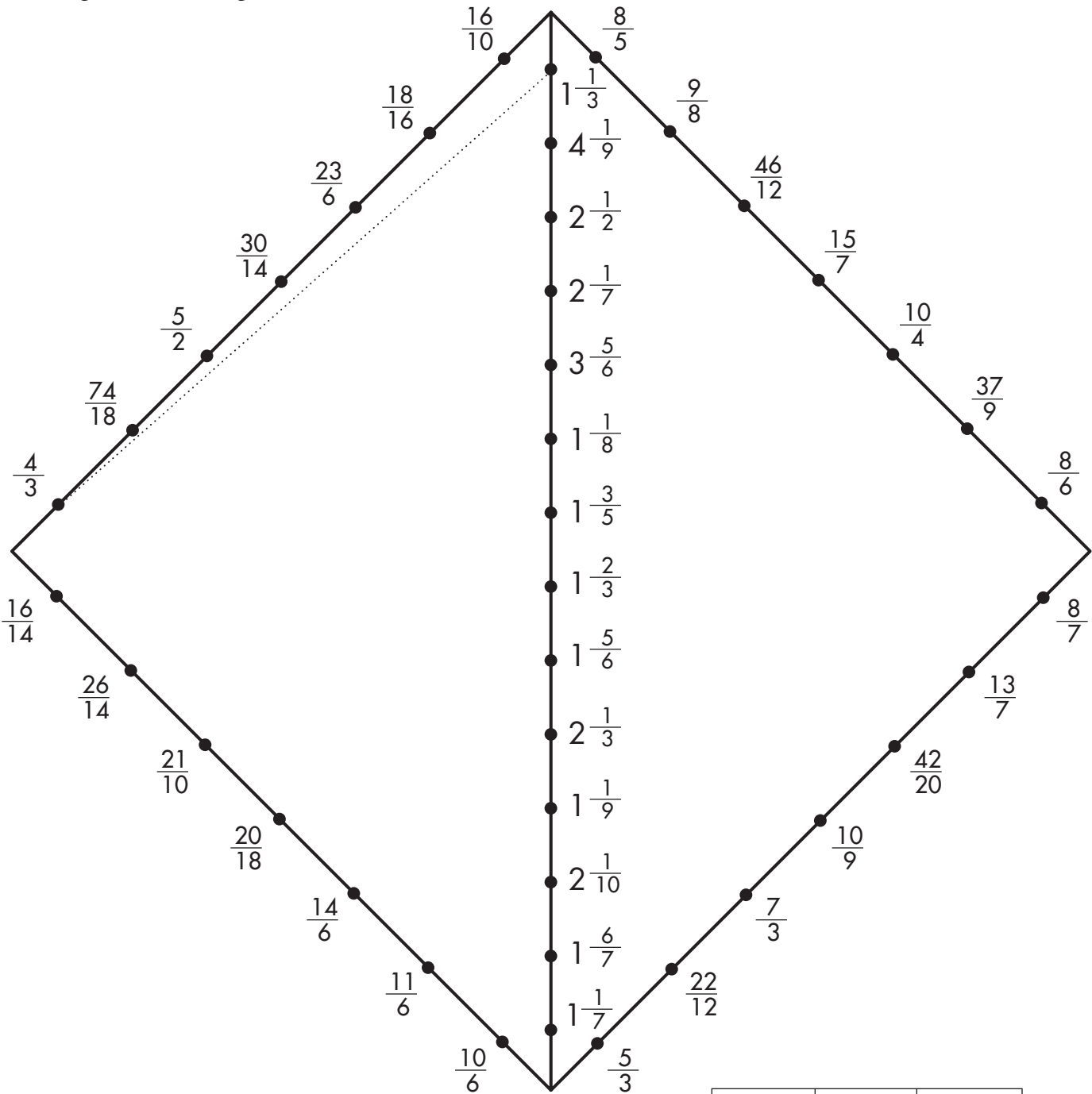
Connect the dots between each pair of equivalent fractions.  
 One line has been drawn for you.

*Taking It Further:* Fill in the missing numbers in this pattern.

$\frac{5}{10}$  ,  $\frac{10}{20}$  ,  $\frac{15}{30}$  , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ ,  $\frac{35}{70}$



# Fly's Eye



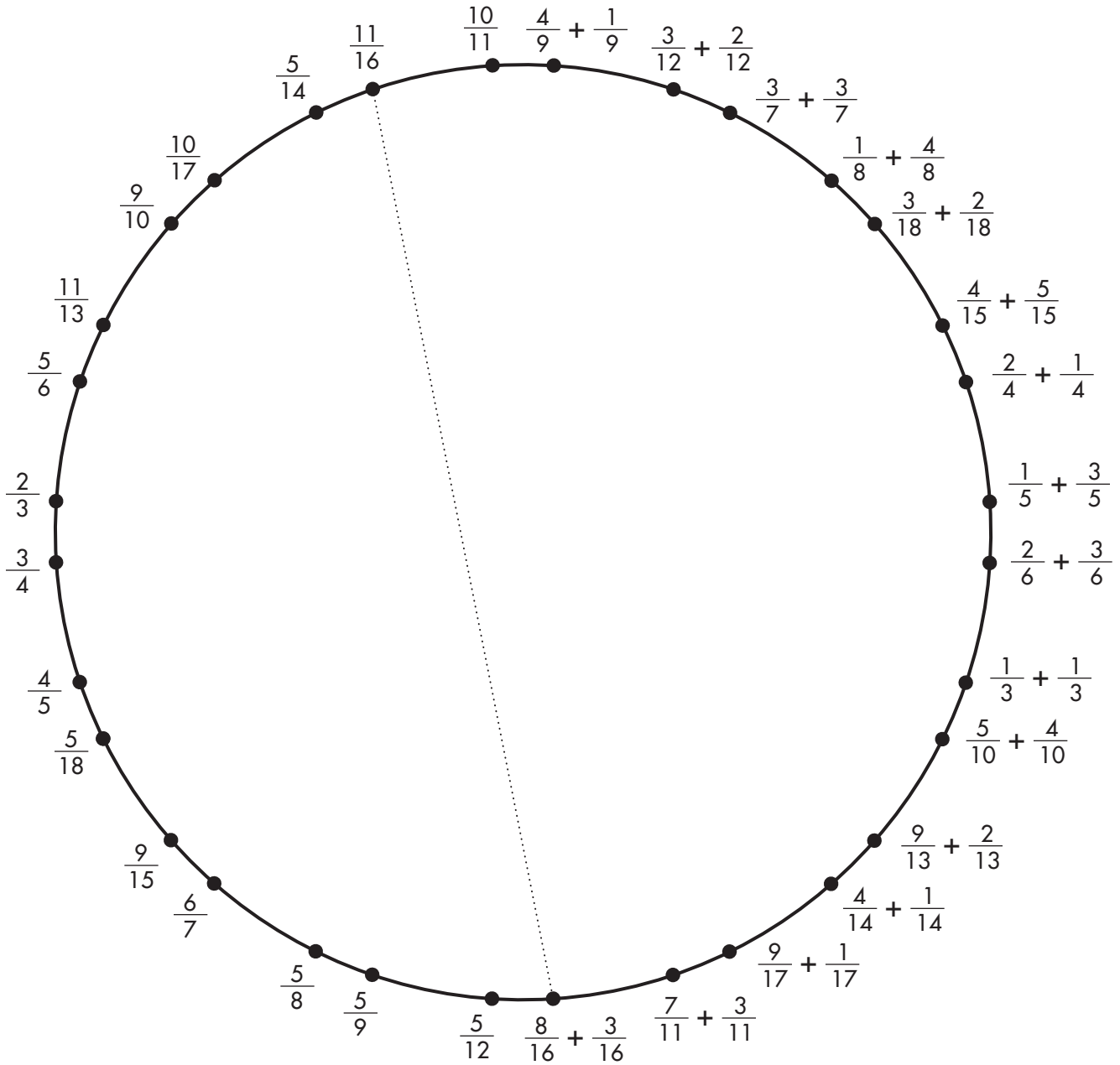
Connect the dot beside each improper fraction to the dot beside its equivalent mixed fraction. The first line has been drawn for you.

*Taking It Further:* Shade the blocks that have improper fractions that equal  $1\frac{1}{2}$ . The shaded blocks will form a letter. What letter do you see?

$\frac{6}{4}$	$\frac{9}{6}$	$\frac{12}{8}$
$\frac{30}{20}$	$\frac{7}{3}$	$\frac{4}{5}$
$\frac{3}{2}$	$\frac{21}{14}$	$\frac{18}{12}$
$\frac{9}{7}$	$\frac{6}{5}$	$\frac{24}{16}$
$\frac{15}{10}$	$\frac{27}{18}$	$\frac{39}{26}$



# Starburst



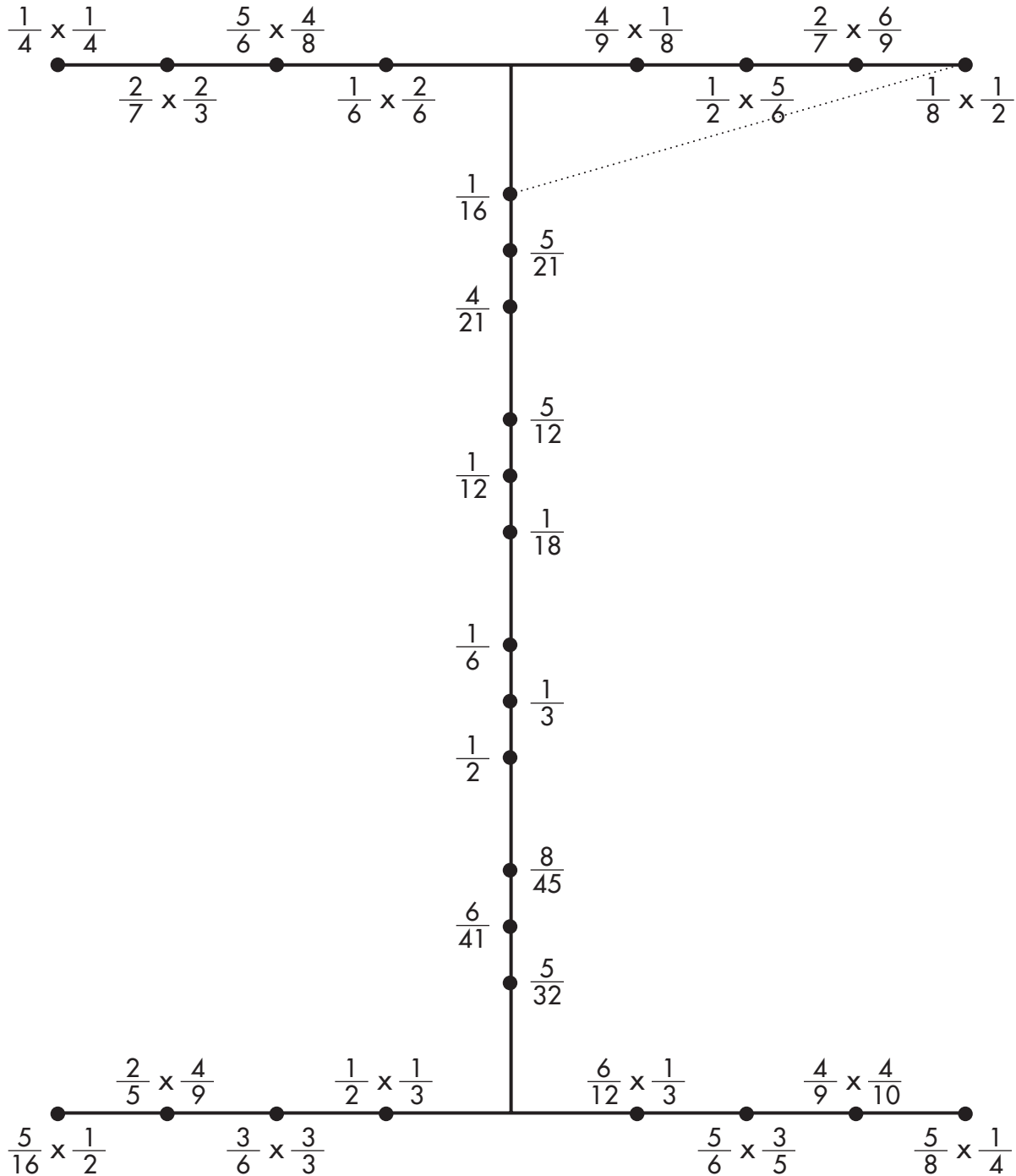
Solve the problems. Rename the answers in lowest terms. Then connect the dot beside each problem to the dot beside its answer. One line has been drawn for you.

*Taking It Further:* Fill in the correct fractions in the boxes below to equal the given sums. The first one has been done for you.

$\frac{1}{3}$	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
$+$ $\frac{1}{3}$	$+$ <input type="text"/>	$+$ <input type="text"/>	$+$ <input type="text"/>	$+$ <input type="text"/>	$+$ <input type="text"/>	$+$ <input type="text"/>
<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>
$\frac{2}{3}$	$\frac{5}{8}$	$\frac{2}{7}$	$\frac{8}{9}$	$\frac{14}{15}$	$\frac{9}{19}$	$\frac{17}{25}$



# Fraction Flippers



Solve the problems. Rename the answers in lowest terms.

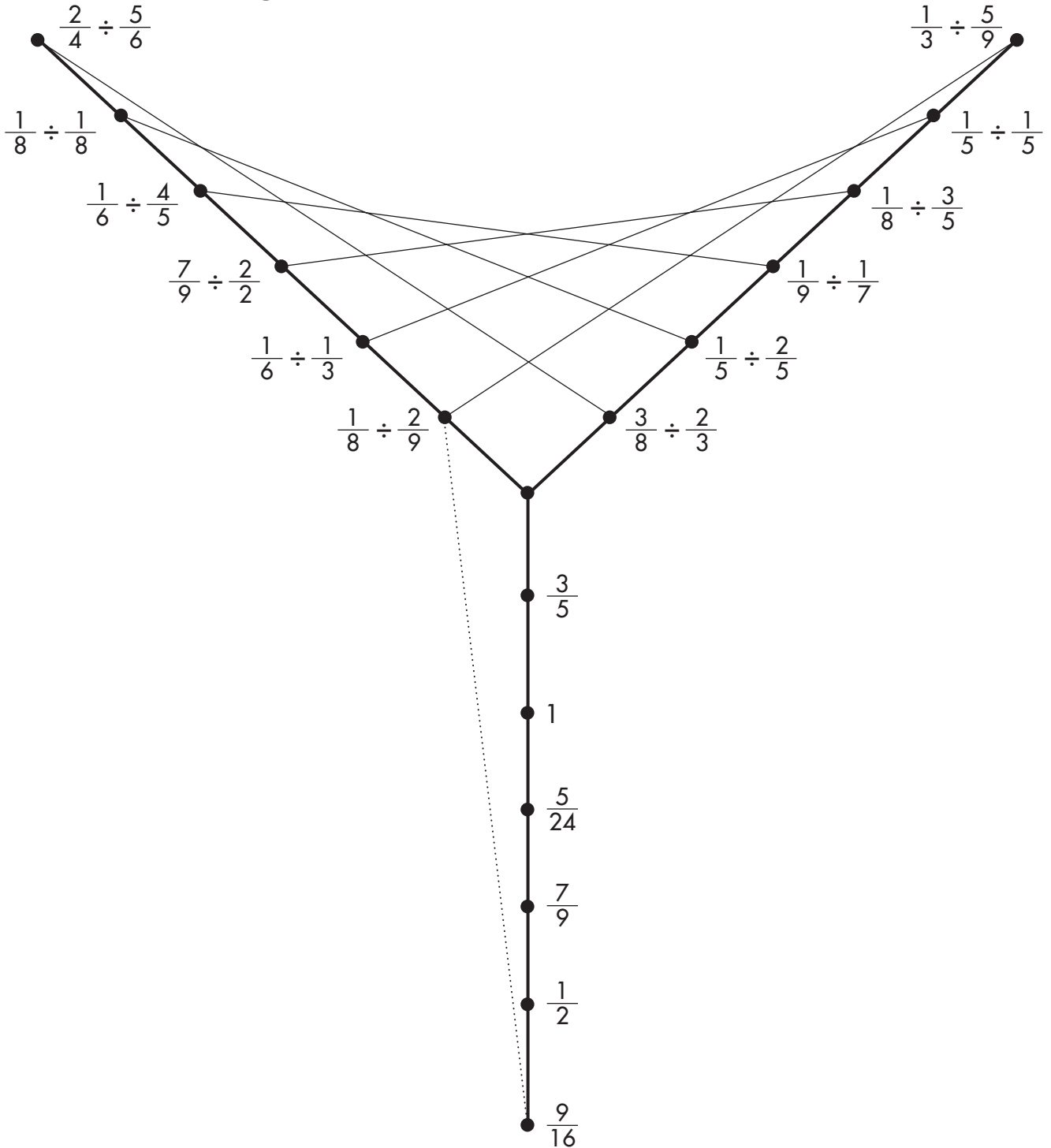
Then connect the dot beside each problem to the dot beside its answer.

One line has been drawn for you. Some dots will not be used.

*Taking It Further:* Tom had  $\frac{1}{2}$  of a box of Crackle Crunch Candies. He ate  $\frac{3}{4}$  of it. What portion of the box of candy was left? \_\_\_\_\_



# Building in Space



Solve the problems. Rename the answers in lowest terms. Then connect the dot beside each problem to the dot beside its answer.

*Taking It Further:* Fill in the missing numbers in the problems below.

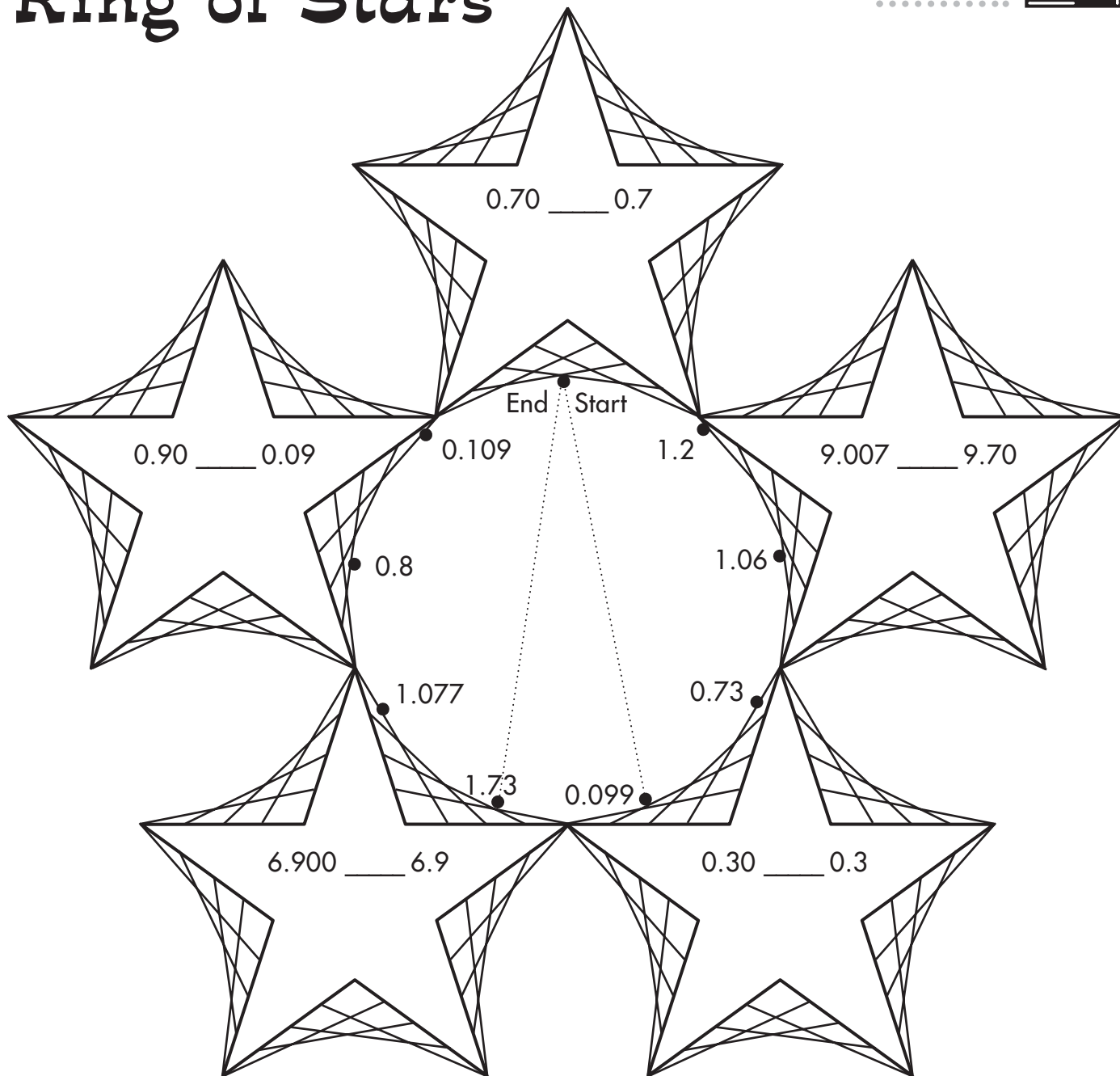
a.  $\frac{1}{9} \div \frac{1}{\square} = \frac{7}{9}$

b.  $\frac{2}{3} \div \frac{6}{\square} = \frac{14}{18}$  or  $\frac{7}{9}$

c.  $\frac{2}{\square} \div \frac{2}{3} = \frac{6}{10}$  or  $\frac{3}{5}$



# Ring of Stars



Form a star polygon by connecting the dots beside the decimals inside the pentagon. Begin with the smallest decimal and continue connecting the dots until you reach the largest decimal. The first and last lines have been drawn for you.

*Taking It Further:* Compare each pair of decimals inside the outer stars by writing  $<$ ,  $>$ , or  $=$  on each blank line.

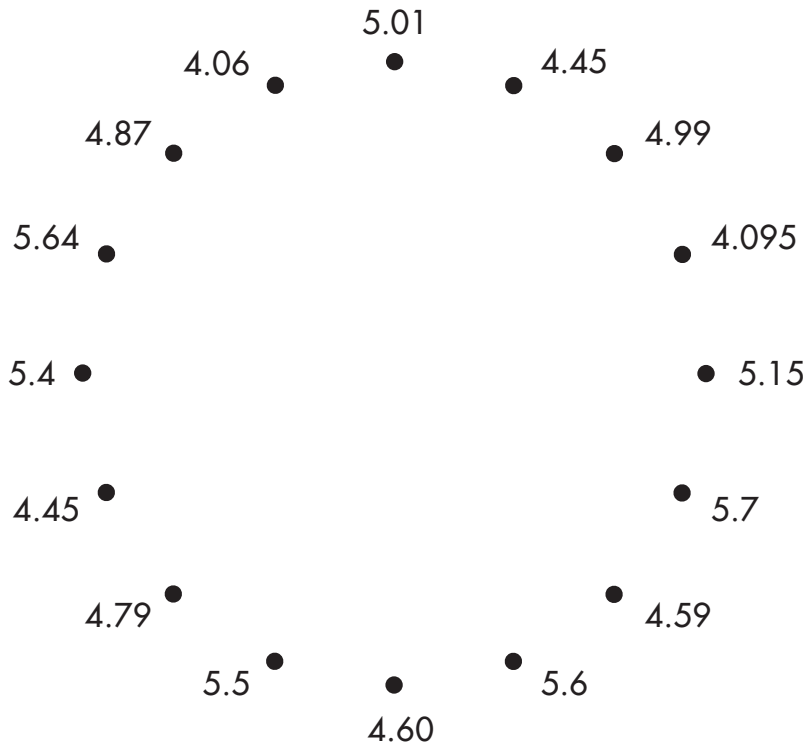
If the decimals inside the star are equivalent, color the star blue.

If the decimals inside the star are not equivalent, color the star red.

Finish the design by coloring the rest of the shapes with the colors of your choice.



# Decimal Flower



You will need a compass to complete this design. Set your compass points as shown below. Then round each decimal in the design to the nearest whole number. If the decimal rounds to 5, place your compass point on the dot beside that number and draw a circle. Watch a flower bloom!

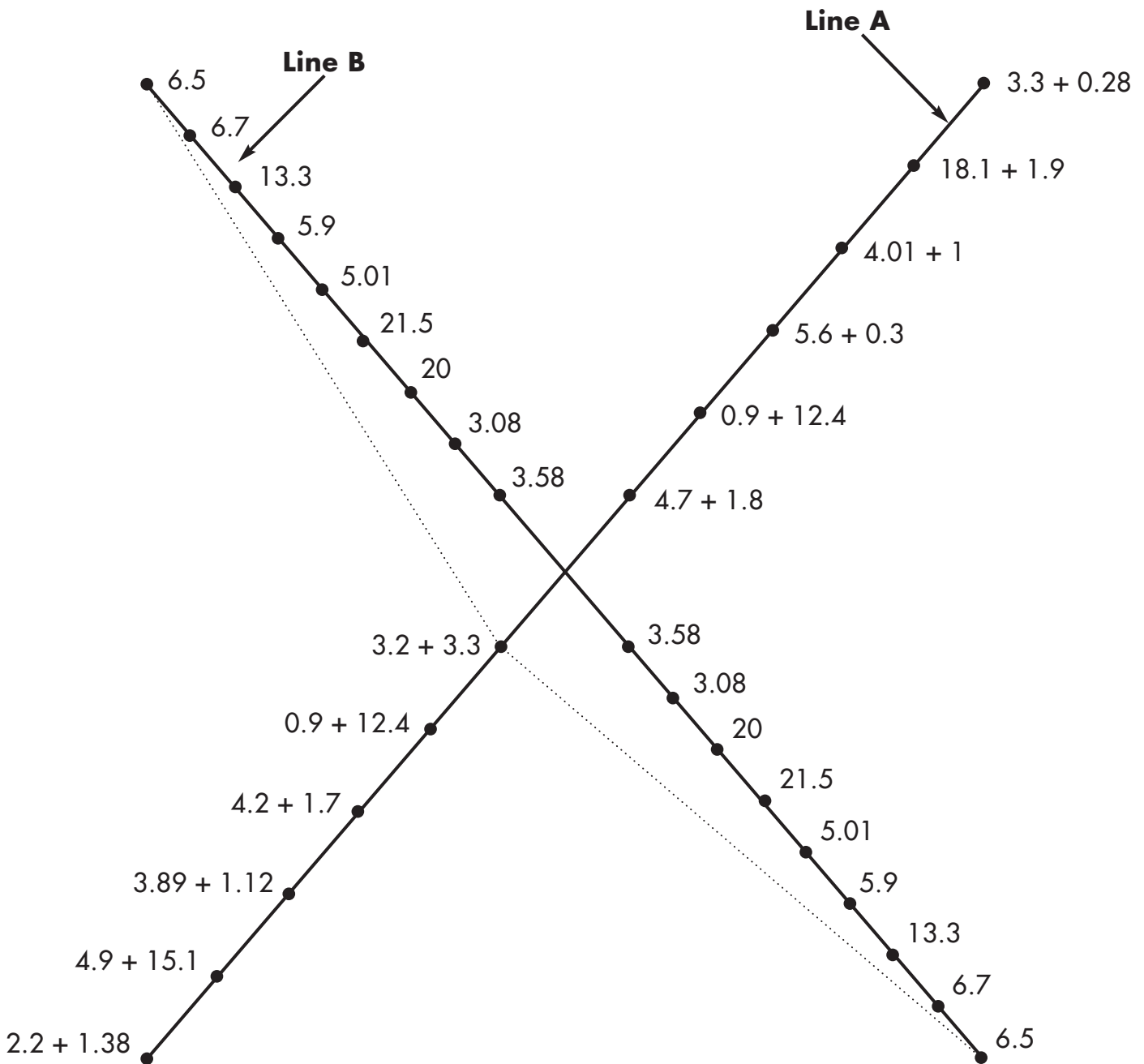
(Hint: If the number to the right of the decimal point is 5 or greater, increase the whole number by one. If that number is less than 5, the whole number stays the same.)

Put your compass point here. → ● (radius of the circle) ← ● Place your pencil point here.

*Taking It Further:* Write 10 decimals that equal 9 when rounded to the nearest whole number.



# Space Satellite



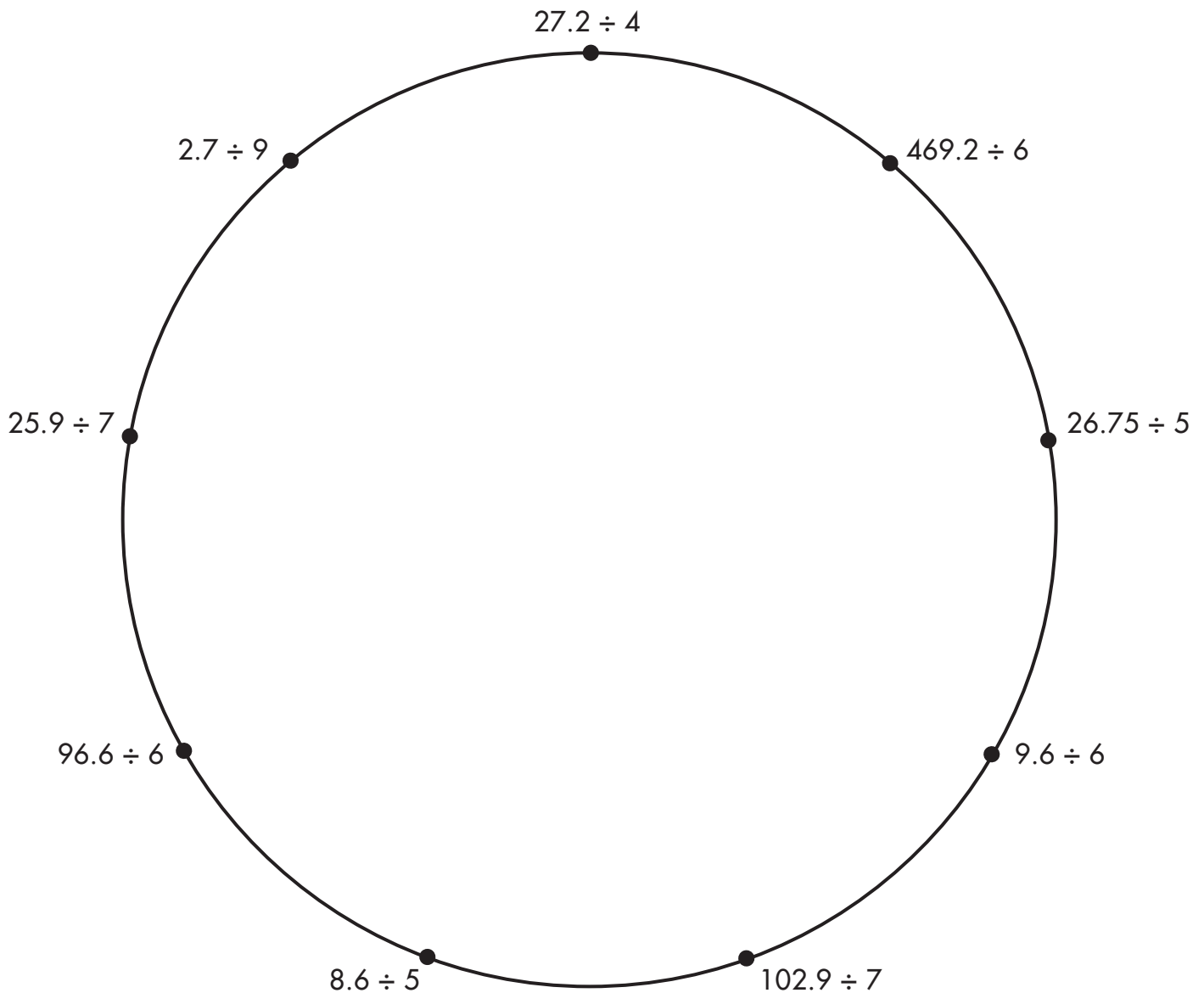
Solve the problems. Then connect the dot beside each problem on Line A to the dot beside its answer on Line B. The answer to each problem appears twice on Line B. Two lines have been drawn for you. Some dots on Line B will not be used.

*Taking It Further:* What three consecutive even decimal numbers have a sum of 7.38?





# Cosmic Blast



Solve the problems. Rename the answers in lowest terms. Then connect the dot beside each problem to the dot beside its answer in the order given below.

14.7, 0.3, 1.6, 3.7, 5.35, 16.1, 78.2, 1.72, 6.8, and 14.7.

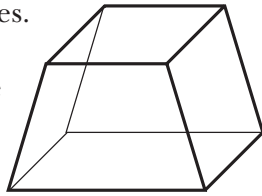
*Taking It Further:* Write the decimal answers from the problems above in order from smallest to greatest.

# How to Assemble the 3-D Constructions

The activity pages that follow (pages 44–61) give students the opportunity to color designs based on answers to mathematical problems and then construct them into three-dimensional shapes. While most of the designs are self-explanatory, these two pages give complete construction directions. If you like, enlarge the patterns on a photocopier before having students construct them.

## The Great Pyramid (page 44)

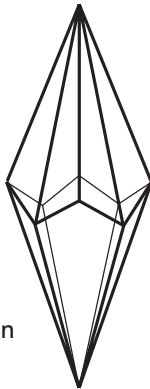
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of the large square shape. Fold down the small square and tape it in place.



truncated square pyramid

## Twirling Top (page 46)

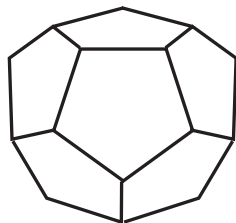
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape flap A to the underside of figure 1. Tape flap B to the underside of figure 2. Then carefully tape the other flaps on figure 2 to the underside of figure 1.



trapezohedron

## A Tornado of Pentagons (page 45) and Dodecahedron Blossoms (page 47)

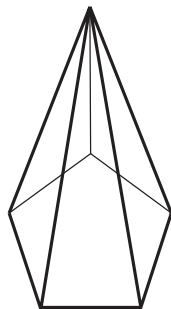
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each lettered flap in alphabetical order to the underside of the pentagon next to it. Tape the numbered tabs on figure 2 to the underside of figure 1.



dodecahedron

## Circus Tent (page 48)

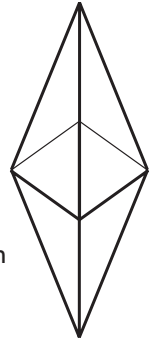
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape flap D to the underside of D. Do the same thing with the rest of the flaps.



pentagonal pyramid

## Dazzling Jewel (page 49)

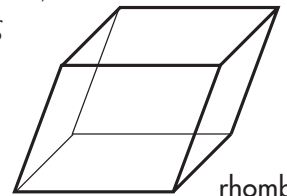
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of a triangle shape.



octahedron

## Bull's Eye Box (page 50)

Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of a rhombus shape.



rhombus

## Dawn is Breaking (page 51)

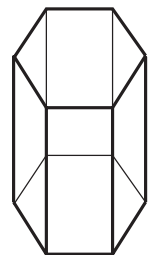
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the inside of the cone.



cone

## Circus Barrel (page 52)

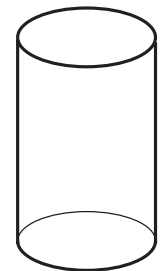
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of an octagon or rectangle shape.



octagonal prism

## Rolling Hearts (page 53)

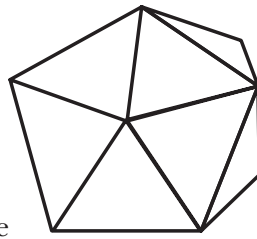
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of the cylinder.



cylinder

**Checkerboard Fractions** (page 54)

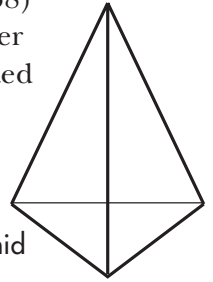
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each unlettered flap to the underside of the triangle shape beside it. Tape flap A to the underside of side A. Do the same thing with the rest of the lettered flaps.



icosahedron

**Whirling Triangles** (page 58)

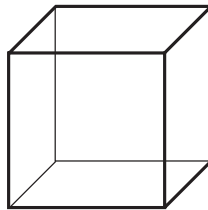
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of a triangle shape.



triangular pyramid

**Jester's Cube** (page 55)

Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of a square shape.

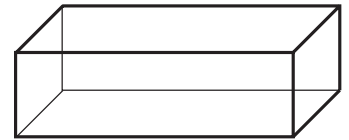


cube

**Bug Box** (page 59)

Cut out the pattern along the outer solid lines and fold along the dotted lines.

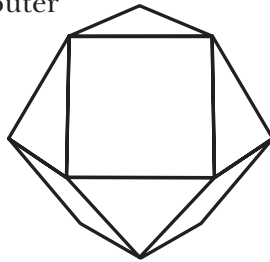
Tape each flap to the underside of either a rectangle or a square shape.



rectangular prism

**Lunar Module** (page 56)

Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape flap A to the underside of side A. Do the same thing with the rest of the flaps.

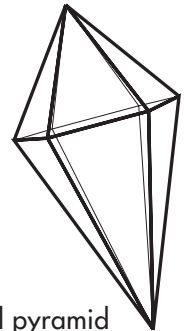


cuboctahedron

**Queen's Gem** (page 60)

Cut out the pattern along the outer solid lines and fold along the dotted lines.

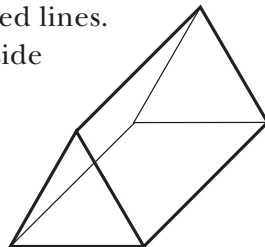
Tape flap A to the underside of side A. Do the same thing with the rest of the flaps.



double pentagonal pyramid

**Greenhouse Fractions** (page 57)

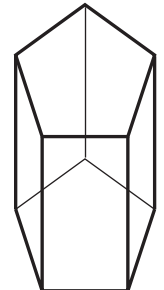
Cut out the pattern along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of a rectangle shape.



triangular prism

**King's Treasure Chest** (page 61)

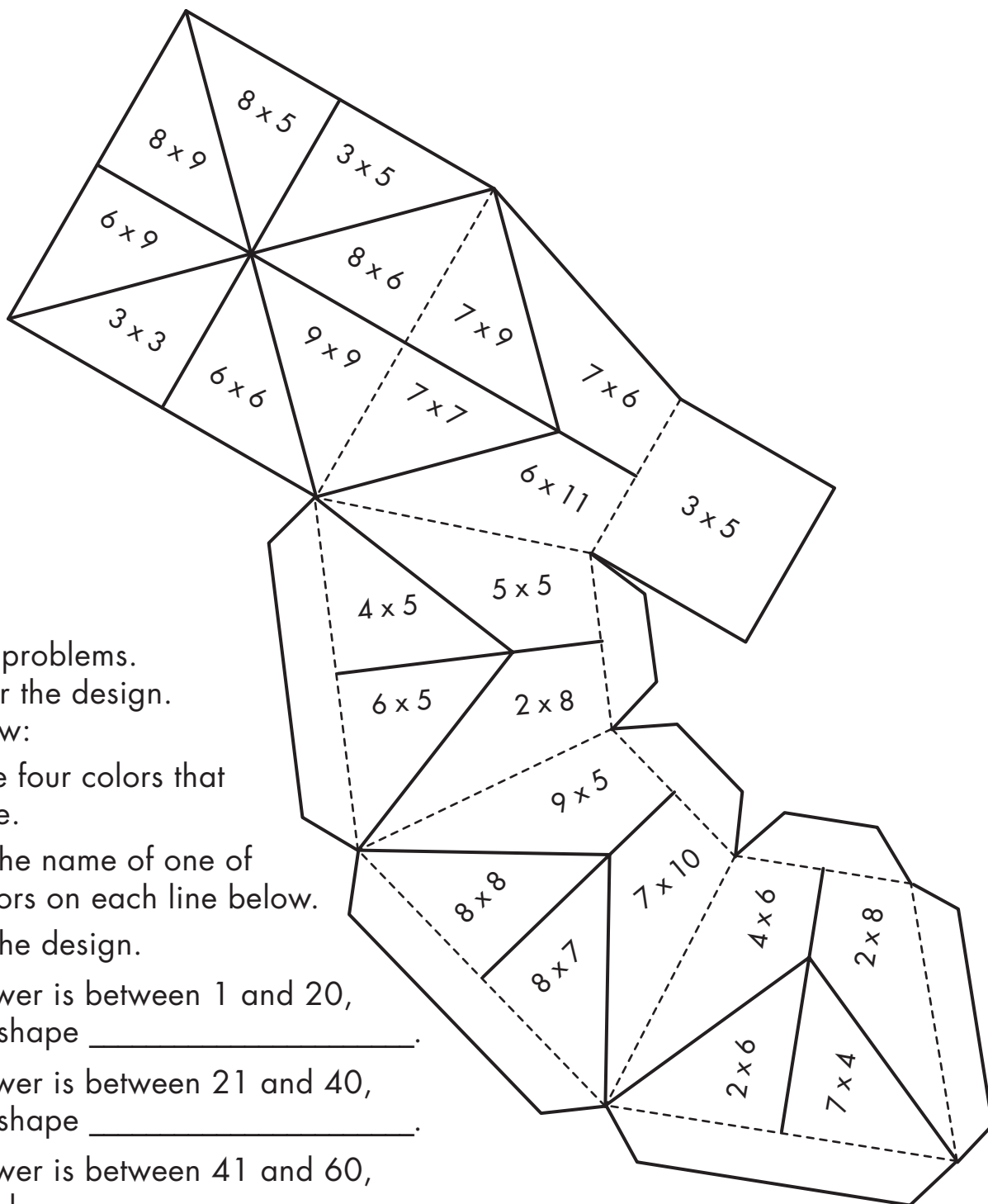
Cut out the shape along the outer solid lines and fold along the dotted lines. Tape each flap to the underside of a pentagon or rectangle shape.



pentagonal prism



# The Great Pyramid



Solve the problems.  
Then color the design.  
Here's how:


1. Choose four colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the answer is between 1 and 20,  
color the shape \_\_\_\_\_.

If the answer is between 21 and 40,  
color the shape \_\_\_\_\_.

If the answer is between 41 and 60,  
color the shape \_\_\_\_\_.

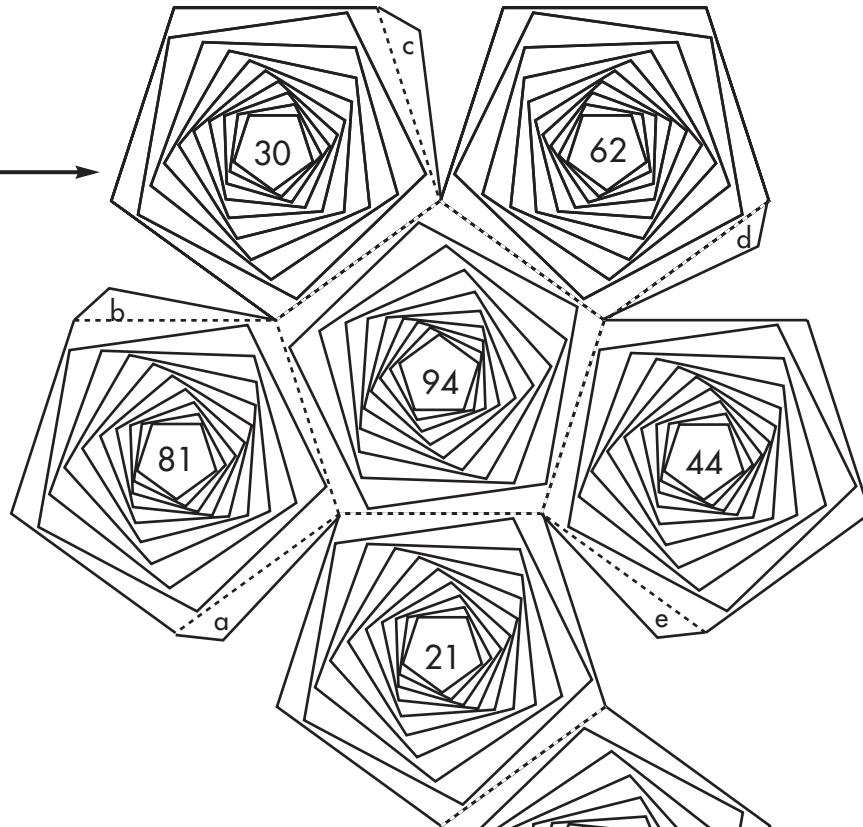
If the answer is between 61 and 90,  
color the shape \_\_\_\_\_.

For more fun, cut out the design and fold it into a  .

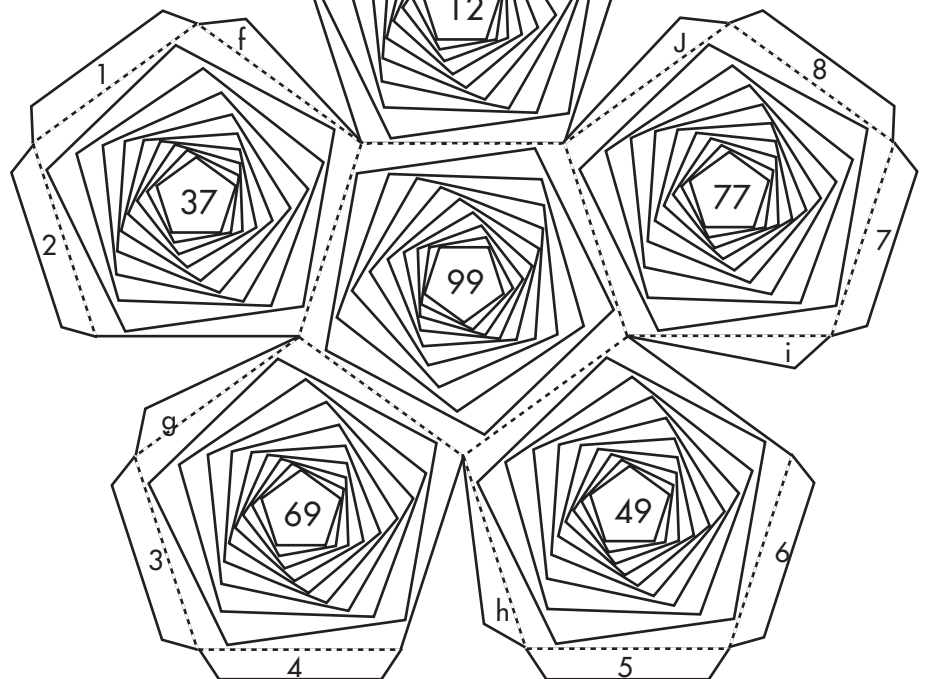


# A Tornado of Pentagons

**Figure 1** →



**Figure 2** →



Multiply each number by 7.

If the answer is between 1 and 200, color the spiral pentagon red.

If the answer is between 201 and 400, color the spiral pentagon green.

If the answer is between 401 and 600, color the spiral pentagon pink.

If the answer is between 601 and 900, color the spiral pentagon yellow.

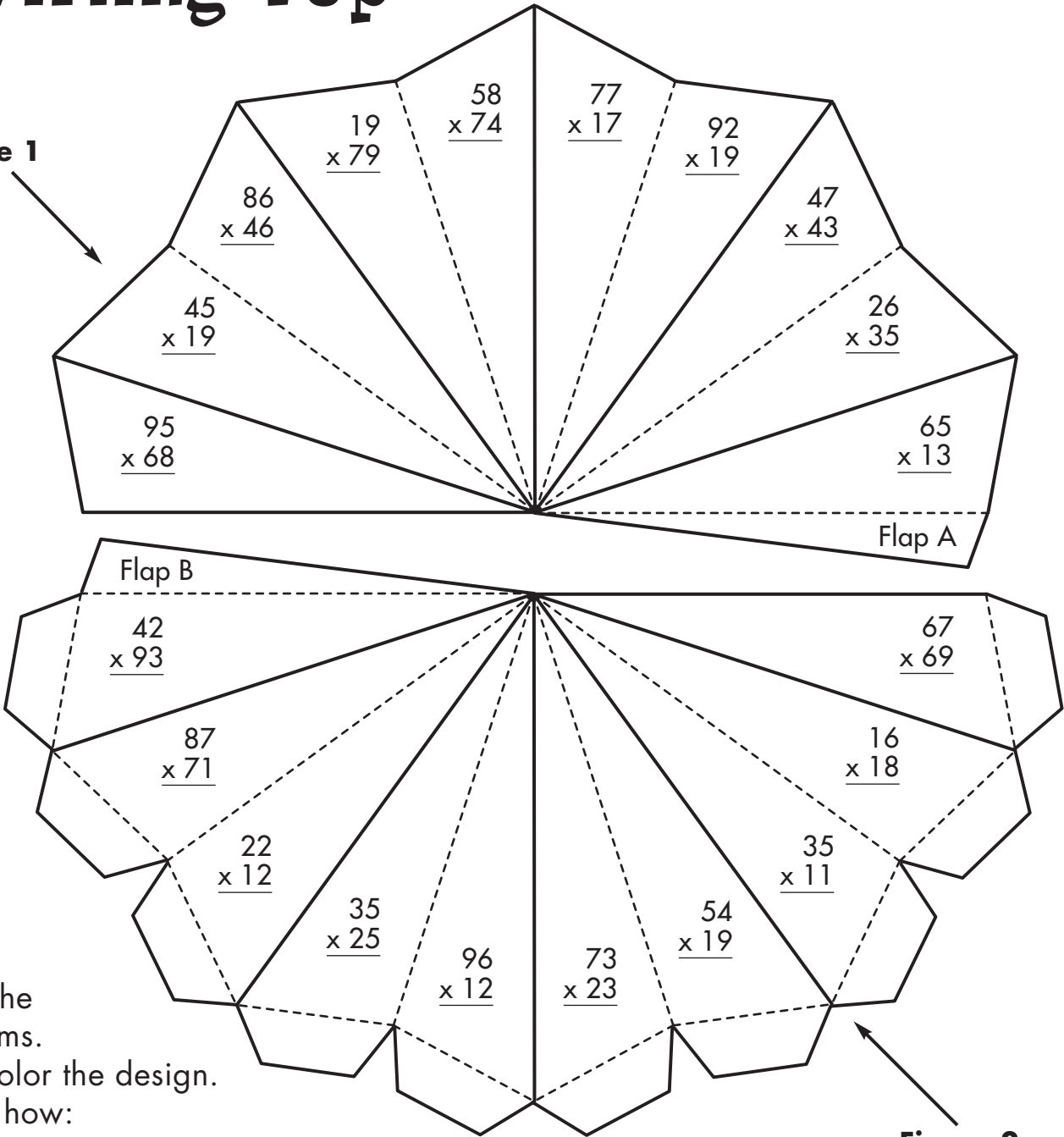
For more fun, cut out the design and fold it into a





# Twirling Top

**Figure 1**



**Figure 2**

Solve the problems.  
Then color the design.  
Here's how:

1. Choose two colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the answer is even,  
color the shape \_\_\_\_\_.

If the answer is odd,  
color the shape \_\_\_\_\_.

For more fun, cut out the design and fold it into a \_\_\_\_\_.





# Dodecahedron Blossoms

477  
x 37

527  
x 29

749  
x 23

837  
x 16

579  
x 85

997  
x 11

377  
x 38

639  
x 24

156  
x 36

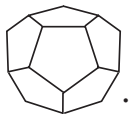
289  
x 61

478  
x 82

788  
x 95

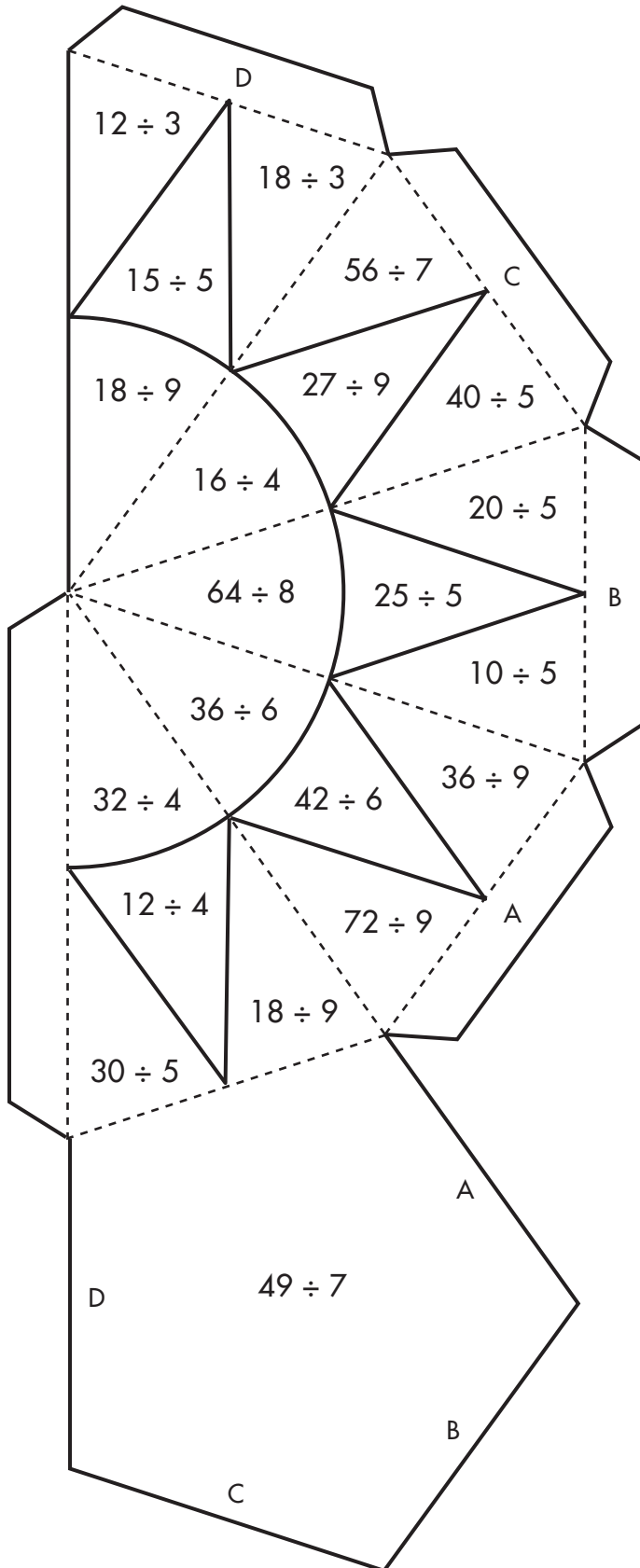
Solve the problems.  
 If the answer ends in an even number, color the shape yellow.  
 If the answer ends in an odd number, color the shape orange.

For more fun, cut out the figure and fold it into a





# Circus Tent

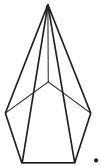


Solve the problems.

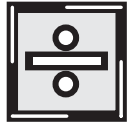
If the answer is even,  
color the shape purple.

If the answer is odd,  
color the shape red.

For more fun,  
cut out the  
design and  
fold it into a







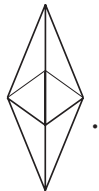
# Dazzling Jewel

Solve the problems.  
Then color the design.  
Here's how:

1. Choose two colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the remainder is 1, 2, 3, 4, or 5, color the shape \_\_\_\_\_.

If the remainder is 6, 7, 8, or 9, color the shape \_\_\_\_\_.

For more fun, cut out the design and fold it into a .

34 ÷ 9

66 ÷ 8

13 ÷ 7

67 ÷ 7

41 ÷ 6

26 ÷ 9

47 ÷ 8

10 ÷ 3

49 ÷ 5

79 ÷ 8

27 ÷ 4

35 ÷ 9

19 ÷ 2

48 ÷ 7

20 ÷ 7

11 ÷ 4

Name \_\_\_\_\_

## DIVISION



Three Digits ÷ Two Digits With No Remainder

# Bull's-Eye Box

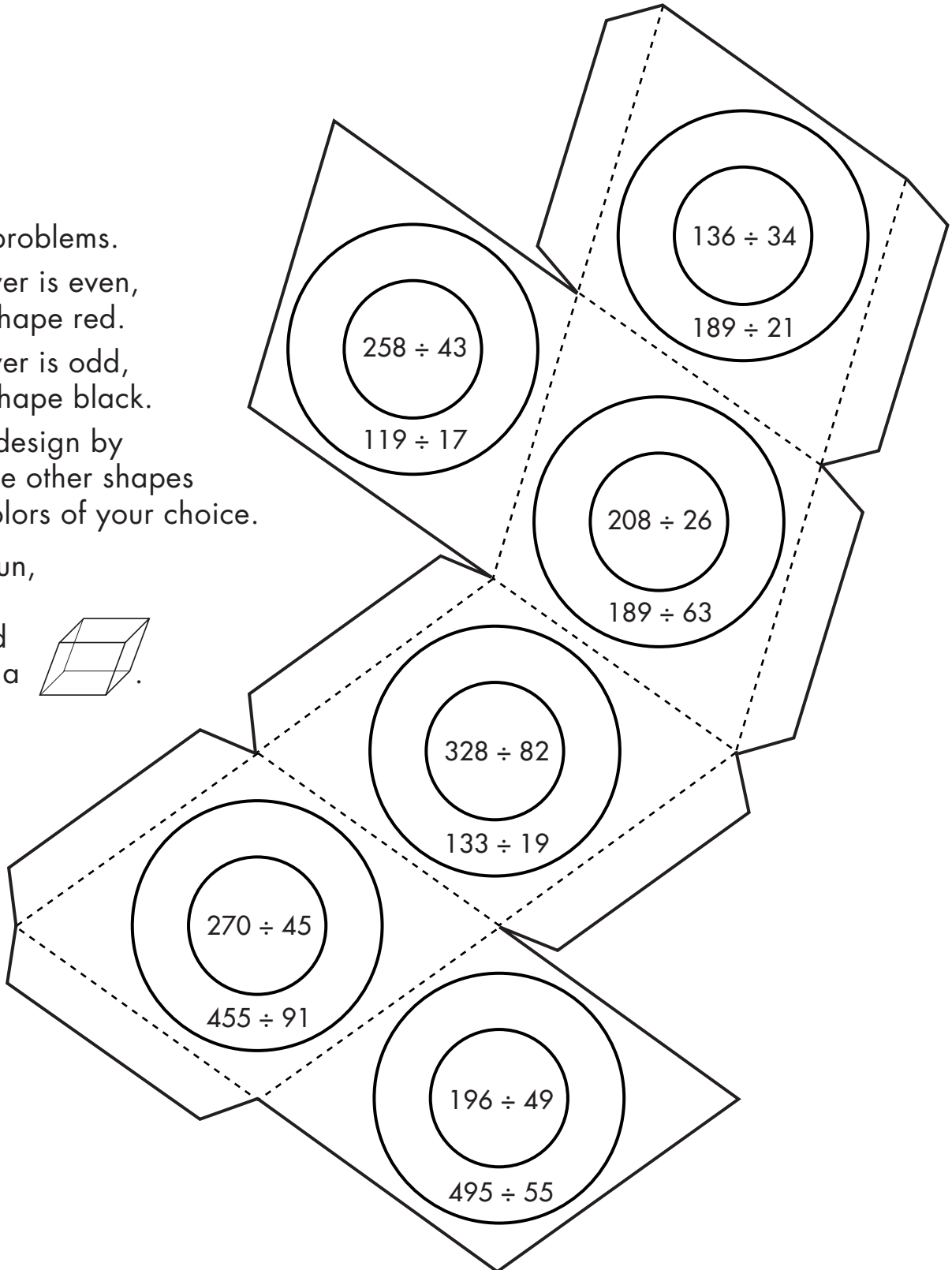
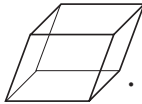
Solve the problems.

If the answer is even,  
color the shape red.

If the answer is odd,  
color the shape black.

Finish the design by  
coloring the other shapes  
with the colors of your choice.

For more fun,  
cut out the  
design and  
fold it into a



Name \_\_\_\_\_

**DIVISION**

Averaging



# Dawn is Breaking

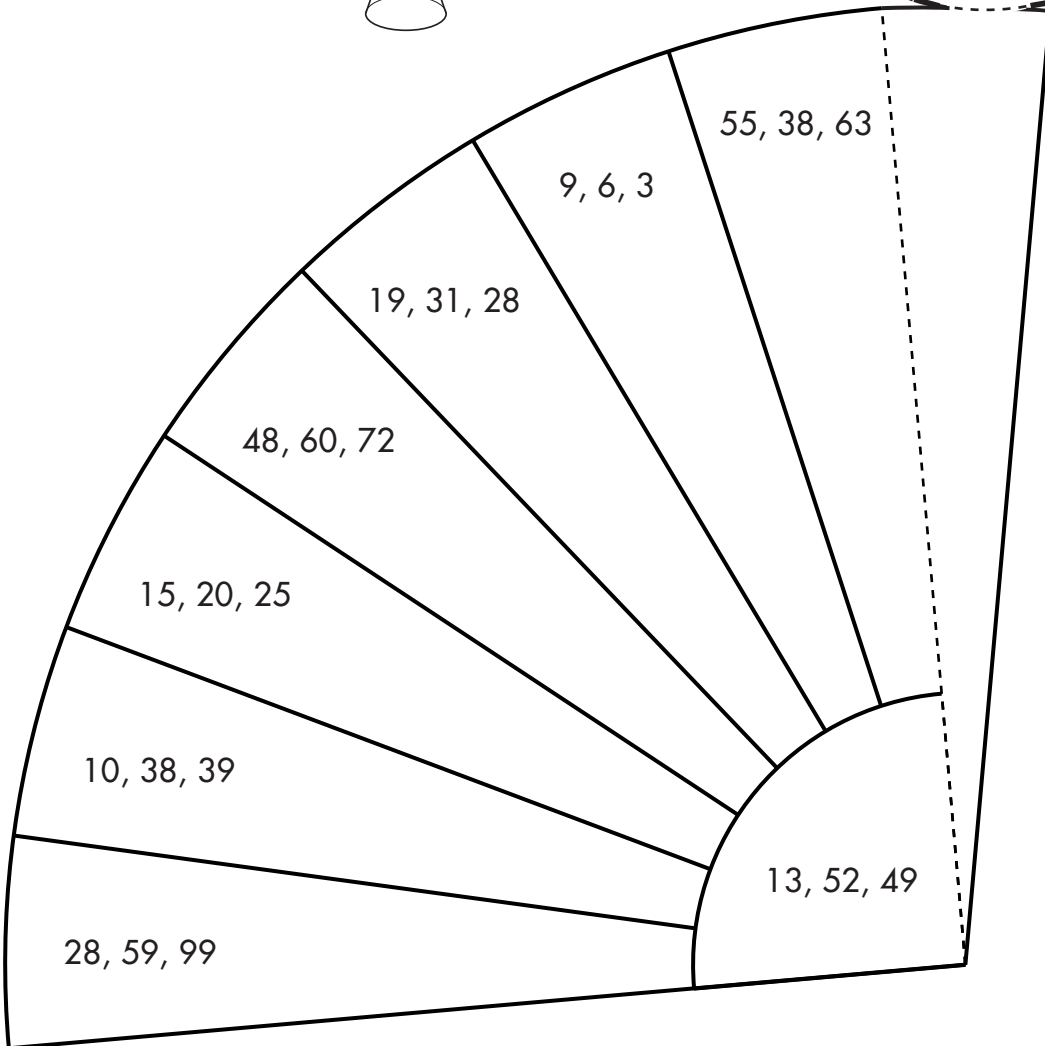
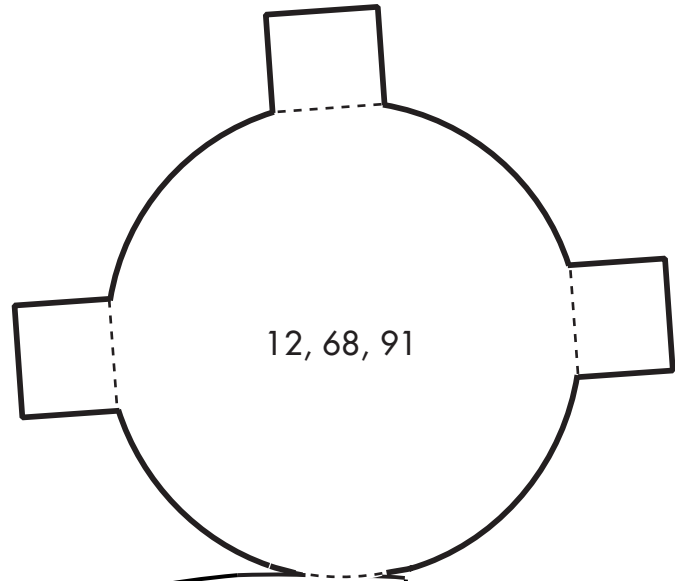
Average each set of three numbers.

If the average is between 1 and 20, color the shape orange.

If the average is between 21 and 40, color the shape yellow.

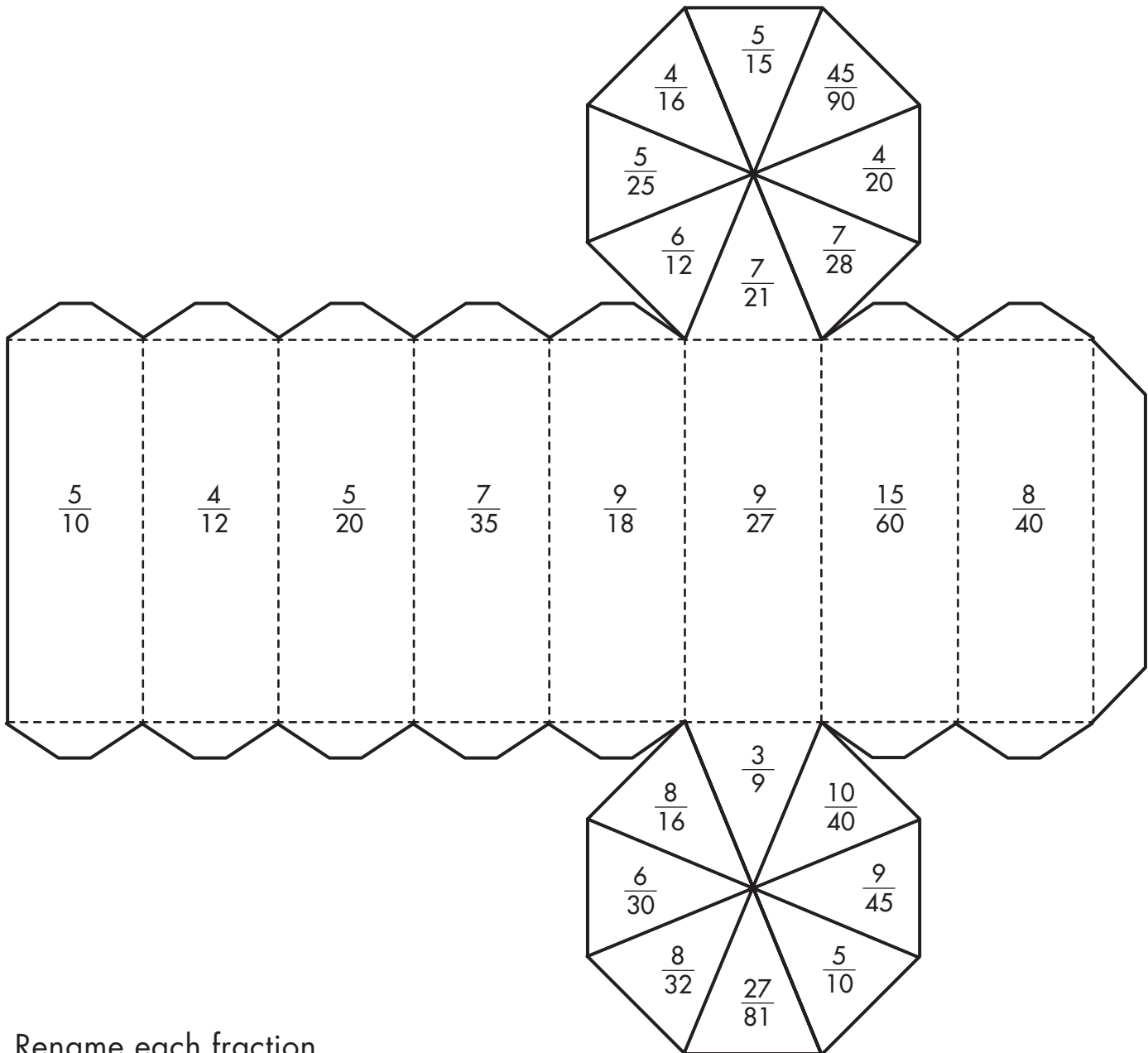
If the average is between 41 and 70, color the shape red.

For more fun, cut out the design and fold it into a





# Circus Barrel



Rename each fraction.

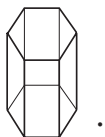
If the fraction is equivalent to  $\frac{1}{2}$ , color the shape red.

If the fraction is equivalent to  $\frac{1}{3}$ , color the shape orange.

If the fraction is equivalent to  $\frac{1}{4}$ , color the shape yellow.

If the fraction is equivalent to  $\frac{1}{5}$ , color the shape blue.

For more fun,  
cut out the design  
and fold it into an



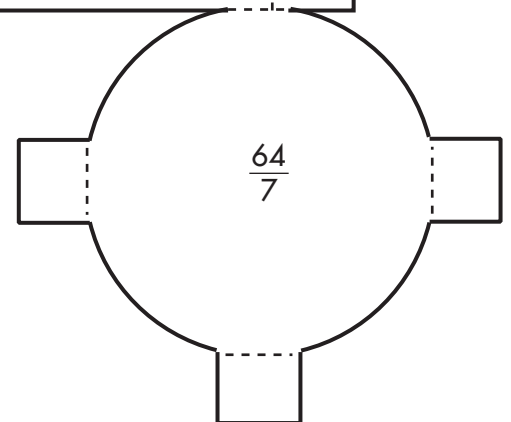
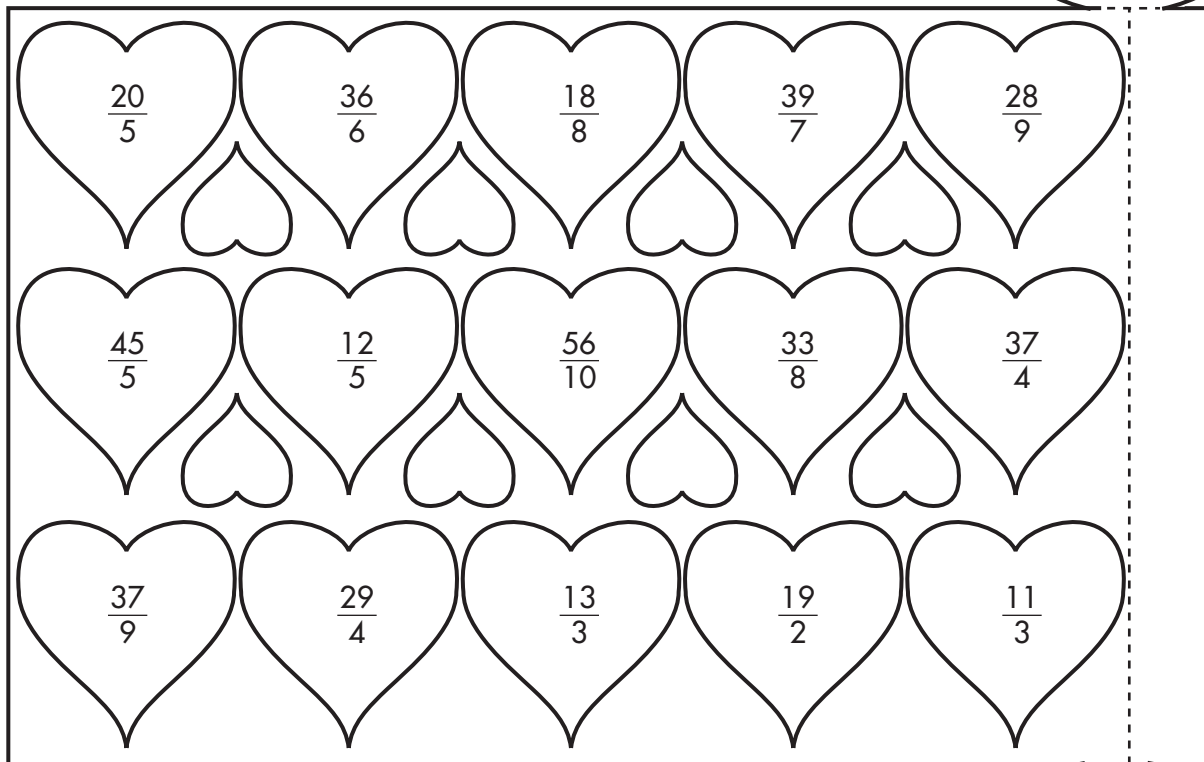
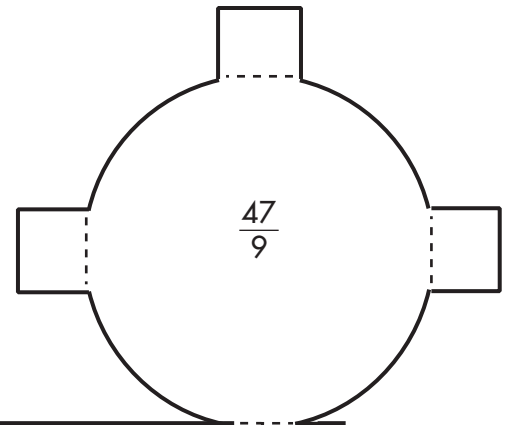
Name \_\_\_\_\_

## FRACTIONS



Improper Fractions to Mixed or Whole Numbers

# Rolling Hearts

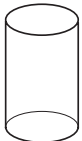


Rename each improper fraction as a mixed or a whole number.

If the answer is  $5\frac{1}{2}$  or greater, color the shape pink.

If the answer is less than  $5\frac{1}{2}$ , color the shape red.

Finish the design by coloring the rest of the shapes with the colors of your choice.

For more fun, cut out the design and fold it into a .



# Checkerboard Fractions

$\frac{3}{24} + \frac{9}{24}$        $\frac{1}{9} + \frac{2}{9}$   
 $\frac{6}{8} + \frac{1}{8}$        $\frac{8}{40} + \frac{2}{40}$   
 $\frac{1}{10} + \frac{4}{10}$        $\frac{1}{12} + \frac{4}{12}$   
 $\frac{1}{3} + \frac{1}{3}$        $\frac{4}{17} + \frac{3}{17}$   
 $\frac{9}{34} + \frac{8}{34}$        $\frac{1}{7} + \frac{2}{7}$   
 $\frac{5}{14} + \frac{2}{14}$        $\frac{1}{9} + \frac{3}{9}$   
 $\frac{4}{8} + \frac{2}{8}$        $\frac{2}{25} + \frac{8}{25}$   
 $\frac{12}{20} + \frac{7}{20}$        $\frac{2}{16} + \frac{2}{16}$   
 $\frac{4}{11} + \frac{2}{11}$        $\frac{1}{8} + \frac{2}{8}$   
 $\frac{7}{30} + \frac{8}{30}$        $\frac{3}{15} + \frac{2}{15}$

Solve the problems.

Rename the answers in lowest terms.

If the answer is  $\frac{1}{2}$  or greater, color the shape red.

If the answer is less than  $\frac{1}{2}$ , color the shape black.

For more fun, cut out the design fold it into an





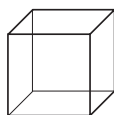
# Jester's Cube

Solve the problems.

If the answer is  $\frac{1}{2}$  or larger, color the shape blue.

If the answer is less than  $\frac{1}{2}$ , color the shape yellow.

For more fun, cut out the design and fold it into a





# Lunar Module

Solve the problems. Rename the answers in lowest terms.

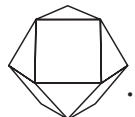
Then color the design. Here's how:

1. Choose two colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the answer is between 1 and 10, color the shape \_\_\_\_\_.

If the answer is between 11 and 20, color the shape \_\_\_\_\_.

For more fun, cut out the design and fold it into a







# Greenhouse Fractions

	$\begin{array}{r} 5\frac{1}{16} \\ - 1\frac{13}{18} \\ \hline \end{array}$	$\begin{array}{r} 13\frac{1}{2} \\ - 11\frac{3}{4} \\ \hline \end{array}$	$\begin{array}{r} 8\frac{1}{3} \\ - 1\frac{8}{9} \\ \hline \end{array}$	$\begin{array}{r} 9\frac{1}{7} \\ - 1\frac{1}{3} \\ \hline \end{array}$
	$\begin{array}{r} 4\frac{3}{8} \\ - 1\frac{3}{4} \\ \hline \end{array}$	$\begin{array}{r} 9\frac{1}{2} \\ - 7\frac{1}{10} \\ \hline \end{array}$	$\begin{array}{r} 3\frac{5}{12} \\ - 1\frac{3}{4} \\ \hline \end{array}$	$\begin{array}{r} 18\frac{1}{10} \\ - 11\frac{4}{5} \\ \hline \end{array}$
$\begin{array}{r} 6\frac{1}{2} \\ - 1\frac{3}{8} \\ \hline \end{array}$	$\begin{array}{r} 8\frac{1}{5} \\ - 1\frac{3}{4} \\ \hline \end{array}$	$\begin{array}{r} 2\frac{1}{3} \\ - 1\frac{3}{8} \\ \hline \end{array}$	$\begin{array}{r} 7\frac{1}{3} \\ - 1\frac{2}{9} \\ \hline \end{array}$	$\begin{array}{r} 7\frac{1}{9} \\ - 1\frac{1}{4} \\ \hline \end{array}$
	$\begin{array}{r} 17\frac{1}{6} \\ - 11\frac{3}{12} \\ \hline \end{array}$	$\begin{array}{r} 18\frac{1}{6} \\ - 11\frac{3}{4} \\ \hline \end{array}$	$\begin{array}{r} 10\frac{1}{8} \\ - 5\frac{1}{4} \\ \hline \end{array}$	$\begin{array}{r} 13\frac{1}{7} \\ - 11\frac{3}{4} \\ \hline \end{array}$
	$\begin{array}{r} 9\frac{1}{7} \\ - 2\frac{2}{3} \\ \hline \end{array}$	$\begin{array}{r} 18\frac{1}{2} \\ - 5\frac{5}{8} \\ \hline \end{array}$	$\begin{array}{r} 19\frac{1}{6} \\ - 10\frac{3}{4} \\ \hline \end{array}$	$\begin{array}{r} 10\frac{3}{8} \\ - 4\frac{3}{7} \\ \hline \end{array}$
	$\begin{array}{r} 9\frac{1}{2} \\ - 8\frac{5}{8} \\ \hline \end{array}$	$\begin{array}{r} 1\frac{1}{10} \\ - \frac{4}{5} \\ \hline \end{array}$	$\begin{array}{r} 12\frac{3}{8} \\ - 9\frac{1}{2} \\ \hline \end{array}$	$\begin{array}{r} 7\frac{1}{3} \\ - 4\frac{1}{9} \\ \hline \end{array}$

Solve the problems. Rename the answers in lowest terms.

If the fractional part of the answer is less than  $\frac{1}{2}$ , color the shape green.

If the fractional part of the answer is  $\frac{1}{2}$  or greater, color the shape yellow.

For more fun, cut out the design and fold it into a .

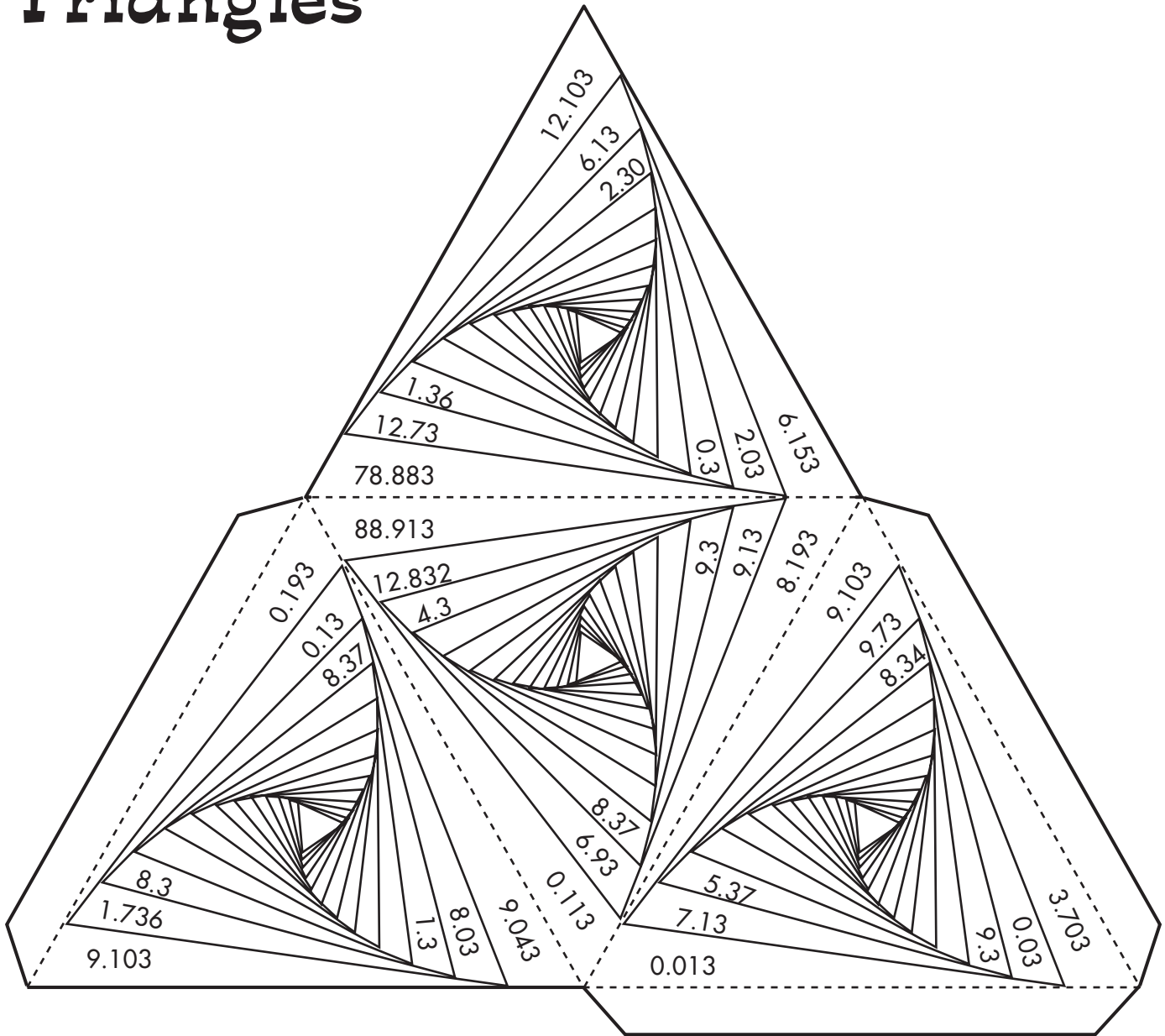
Name \_\_\_\_\_

# DECIMALS

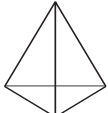
Place Value



# Whirling Triangles



If the number has a 3 in the thousandths place, color the shape green.  
If the number has a 3 in the hundredths place, color the shape yellow.  
If the number has a 3 in the tenths place, color the shape blue.  
Finish the design by coloring the other shapes with the colors of your choice.

For more fun,  
cut out the design  
and fold it into a .

Name \_\_\_\_\_

# DECIMALS

## Subtraction



# Bug Box

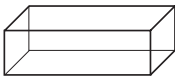
$\begin{array}{r} 891.8 \\ - 70.7 \\ \hline \end{array}$				$\begin{array}{r} 891.8 \\ - 70.7 \\ \hline \end{array}$			
$\begin{array}{r} 6.05 \\ - 3.01 \\ \hline \end{array}$	$\begin{array}{r} 489.6 \\ - 211.7 \\ \hline \end{array}$	$\begin{array}{r} 5.99 \\ - 4.01 \\ \hline \end{array}$	$\begin{array}{r} 605.4 \\ - 115.5 \\ \hline \end{array}$	$\begin{array}{r} 787.2 \\ - 722.5 \\ \hline \end{array}$	$\begin{array}{r} 481.2 \\ - 131.3 \\ \hline \end{array}$	$\begin{array}{r} 3.31 \\ - 1.92 \\ \hline \end{array}$	$\begin{array}{r} 906.0 \\ - 408.8 \\ \hline \end{array}$
$\begin{array}{r} 818.8 \\ - 219.9 \\ \hline \end{array}$	$\begin{array}{r} 459.3 \\ - 118.9 \\ \hline \end{array}$	$\begin{array}{r} 811.0 \\ - 212.8 \\ \hline \end{array}$	$\begin{array}{r} 970.0 \\ - 560.9 \\ \hline \end{array}$	$\begin{array}{r} 759.08 \\ - 12.11 \\ \hline \end{array}$	$\begin{array}{r} 1,109.1 \\ - 833.9 \\ \hline \end{array}$	$\begin{array}{r} 667.6 \\ - 132.9 \\ \hline \end{array}$	$\begin{array}{r} 1,050.7 \\ - 725.7 \\ \hline \end{array}$
$\begin{array}{r} 969.2 \\ - 69.3 \\ \hline \end{array}$				$\begin{array}{r} 969.2 \\ - 69.3 \\ \hline \end{array}$			

Solve the problems.

If the answer is between 1 and 250, color the shape red.

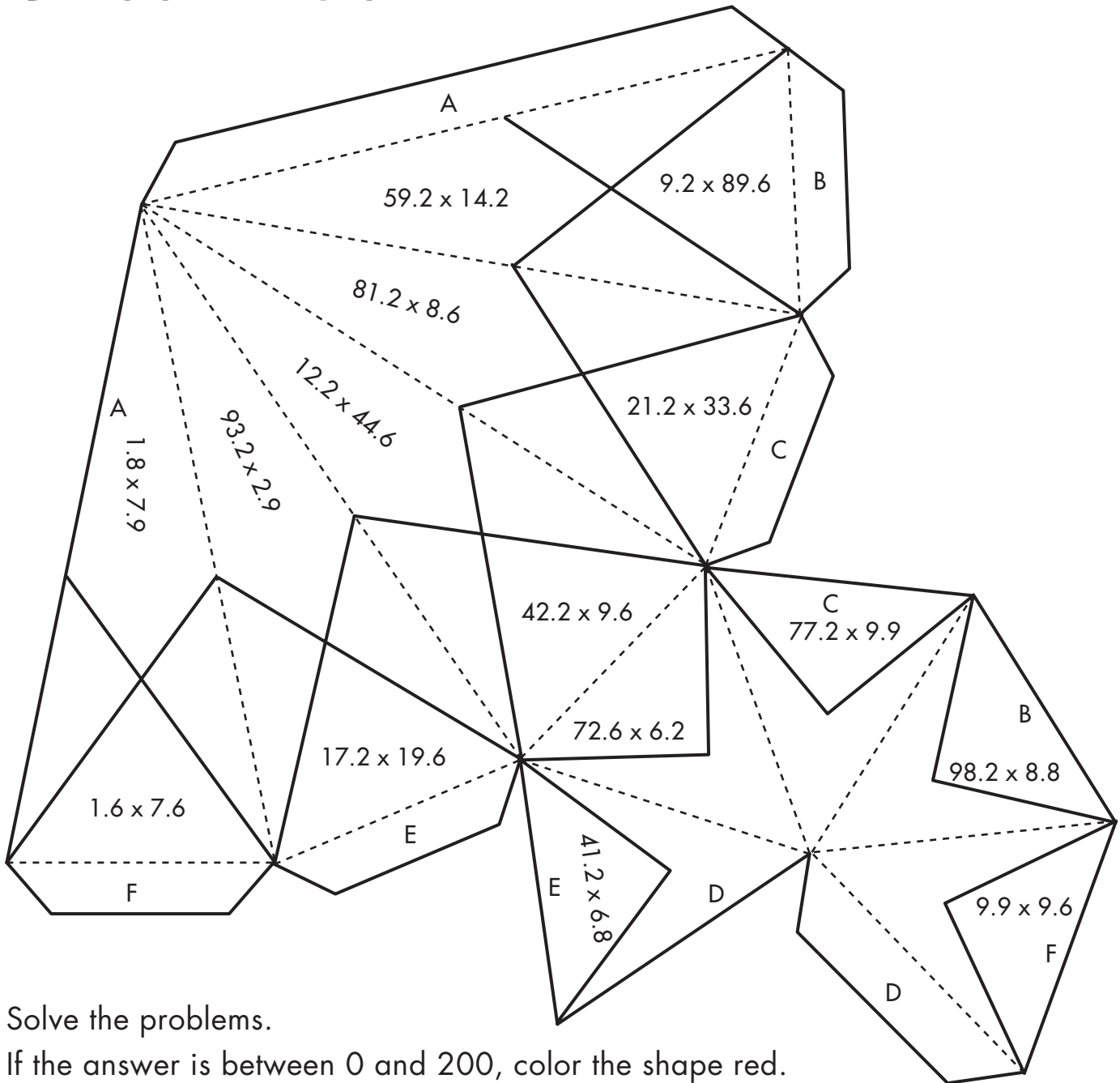
If the answer is between 251 and 500, color the shape yellow.

If the answer is between 501 and 1,000, color the shape green.

For more fun, cut out the design and fold it into a .



# Queen's Gem



Solve the problems.

If the answer is between 0 and 200, color the shape red.

If the answer is between 201 and 400, color the shape orange.

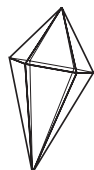
If the answer is between 401 and 600, color the shape yellow.

If the answer is between 601 and 800, color the shape blue.

If the answer is between 801 and 1,000, color the shape purple.

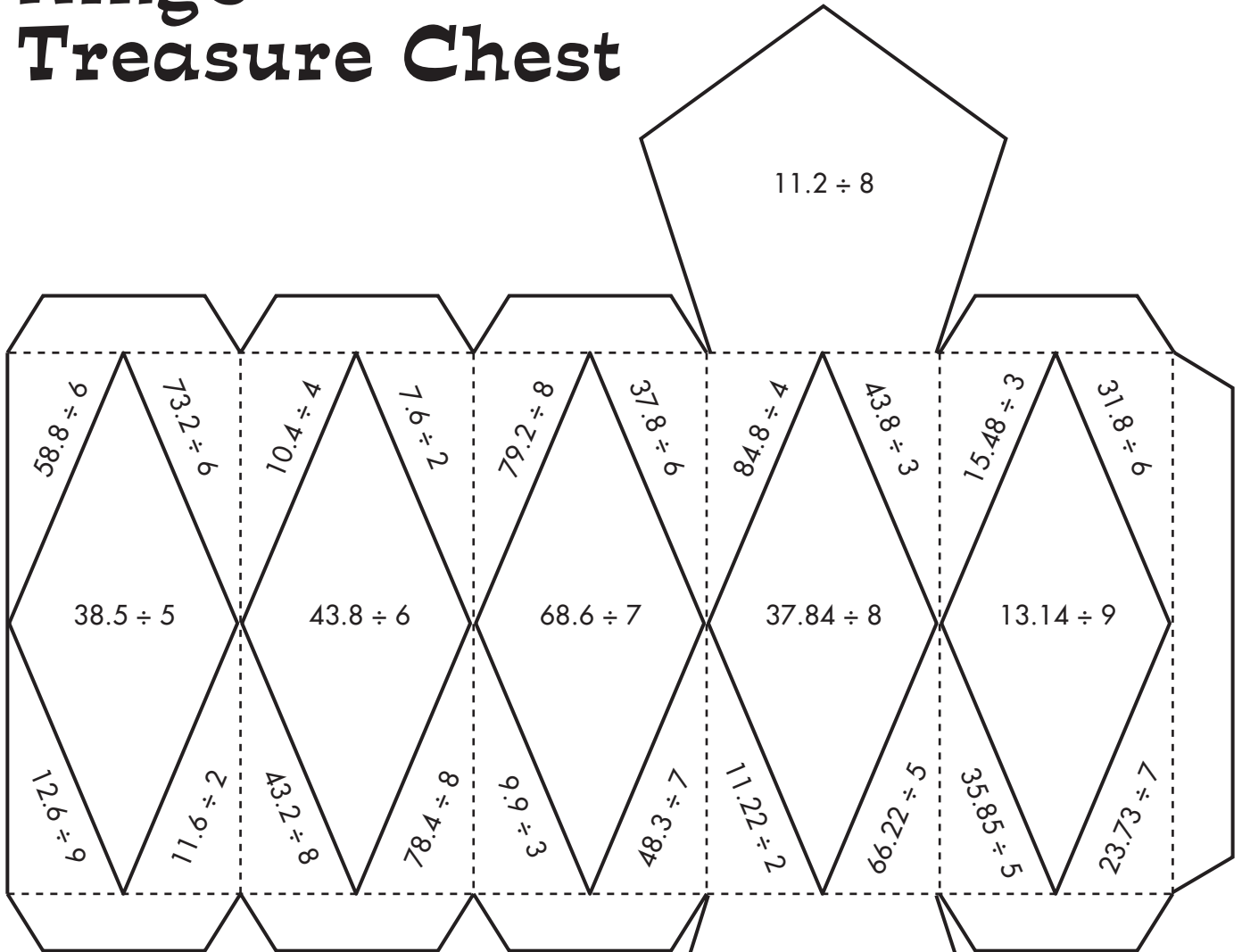
Finish the design by coloring the other shapes with the colors of your choice.

For more fun, cut out the design and fold it into a





# King's Treasure Chest




Solve the problems. Then color the design. Here's how:

1. Choose two colors that you like.
2. Write the name of one of the colors on each line below.
3. Color the design.

If the number in the tenths place is even, color the shape \_\_\_\_\_.

If the number in the tenths place is odd, color the shape \_\_\_\_\_.

For more fun, cut out the design and fold it into a  .



# Answers

Answers for *Taking It Further* Questions,  
pages 8-42

**Page 8: Picture-Perfect Star**

a. 9; b. 7; c. 6

**Page 9: Soccer Balls**

a. 2; b. 1; c. 5

**Page 10: Purple Blossoms**

222

**Page 11: Into the Abyss**

333

**Page 12: Honeycomb**

a. 26; b. 53; c. 21

**Page 13: Flying Carpet**

$$\begin{array}{r}
 432 \\
 2 \overline{) 864} \\
 \underline{- 8} \phantom{0} \\
 06 \\
 \underline{- 6} \phantom{0} \\
 04 \\
 \underline{- 4} \\
 0
 \end{array}$$

**Page 14: Octagon Remainders**

Answers will vary.

**Page 15: Fourteen Boxes**

a. 7; b. 7; c. 6

**Page 16: Spring Flowers**

$\frac{1}{7}$	$\frac{1}{7}$
$\frac{6}{14}$	$\frac{4}{14}$

$\frac{1}{2}$	$\frac{2}{14}$
$\frac{1}{14}$	$\frac{4}{14}$

$\frac{8}{14}$	$\frac{2}{14}$
$\frac{1}{7}$	$\frac{1}{7}$

**Page 17: Into Infinity**

a.  $\frac{4}{20}$     b.  $\frac{3}{8}$     c.  $\frac{3}{7}$

**Page 18: Stained-Glass Octagon**

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$
$\frac{5}{20}$	$\frac{1}{2}$	$\frac{1}{4}$
$\frac{4}{8}$	$\frac{4}{16}$	$\frac{2}{8}$

**Page 19: Trefoil**

a.  $\frac{1}{20}$     b.  $\frac{2}{9}$     c.  $\frac{4}{7}$

**Page 20: Fireworks**

a.  $\frac{1}{5}$     b.  $\frac{37}{42}$     c.  $\frac{17}{30}$

**Page 21: Kaleidoscope of Flowers**



**Page 22: Dottie's Quilt**

820.11

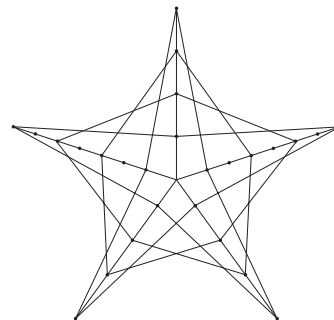
**Page 23: Lantern Glow**

a. 2.391; b. 69.63; c. 76.03; d. 3.888

**Page 24: Stars and Stripes**

7.5 candy bars

**Page 25:  
The North Star**

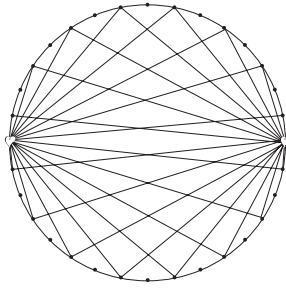


15	x	9	=	135
+				+
15	x	5	=	75
=				=
30	x	7	=	210

34	x	6	=	204
+				+
21	x	6	=	126
=				=
55	x	6	=	330

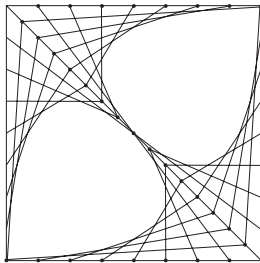
**Page 26: In the Wink of an Eye**

a. 9; b. 7; c. 2; d. 2



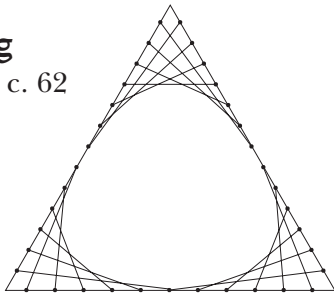
**Page 27: Weaving Webs**

a. 4; b. 5;  
c. 10; d. 8



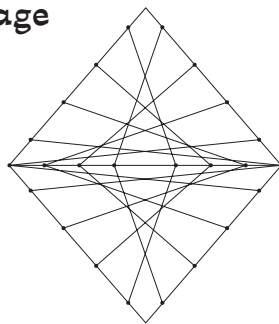
**Page 28: Goose Egg**

a. 37; b. 41; c. 62

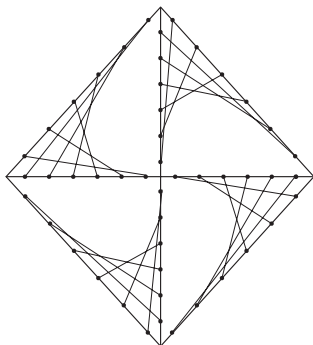


**Page 29: Mirror Image**

a. 54, 45, 36, 27, 18  
b. 42, 35, 28, 21, 14



**Page 30: Whirling Fan**



**Page 30:**

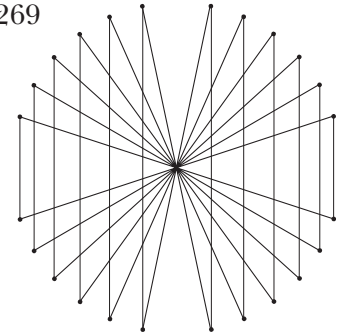
155	÷	5	=	31
+				+
130	÷	5	=	26
=				=
285	÷	5	=	57

282	÷	6	=	47
+				+
354	÷	6	=	59
=				=
636	÷	6	=	106

**Page 31: Into the Black Hole**

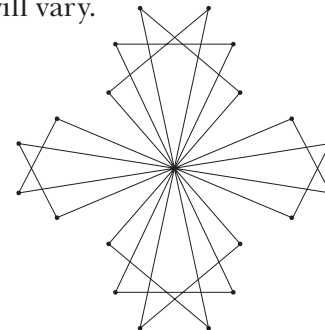
smallest dividend: 262

greatest dividend: 269



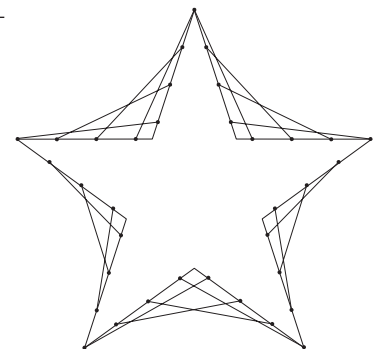
**Page 32: Gift Bow**

Answers will vary.

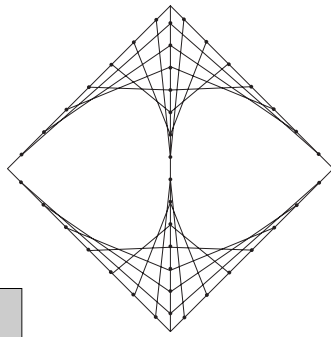


**Page 33: Supernova**

$\frac{20}{40}$ ,  $\frac{25}{50}$ ,  $\frac{30}{60}$



**Page 34:  
Fly's Eye**

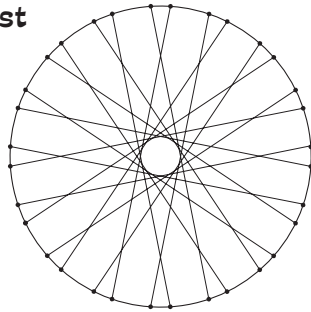


$\frac{6}{4}$	$\frac{9}{6}$	$\frac{12}{8}$
$\frac{30}{20}$	$\frac{7}{3}$	$\frac{4}{5}$
$\frac{3}{2}$	$\frac{21}{14}$	$\frac{18}{12}$
$\frac{9}{7}$	$\frac{6}{5}$	$\frac{24}{16}$
$\frac{15}{10}$	$\frac{27}{18}$	$\frac{39}{26}$

The shaded blocks form the letter S.

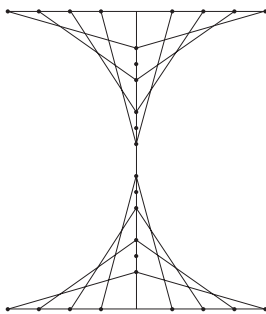
**Page 35: Starburst**

Answers will vary.



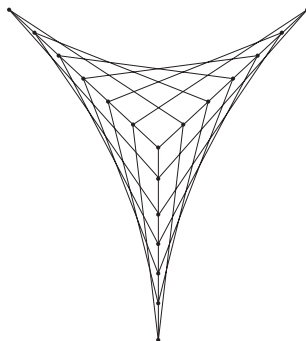
**Page 36: Fraction Flippers**

$\frac{3}{8}$  of the box of candy



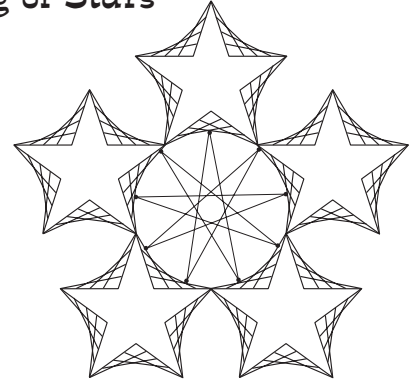
**Page 37:  
Building in Space**

a. 7; b. 7; c. 5



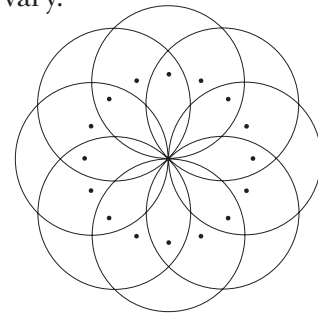
**Page 38: Ring of Stars**

$0.70 = 0.7$ ;  
 $9.007 < 9.70$ ;  
 $0.30 = 0.3$ ;  
 $6.900 = 6.9$ ;  
 $0.90 > 0.09$



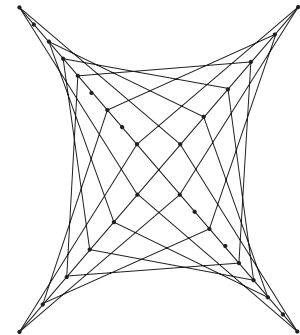
**Page 39: Decimal Flower**

Answers will vary.



**Page 40: Space Satellite**

2.44, 2.46, 2.48



**Page 41: Cosmic Blast**

0.3, 1.6, 1.72, 3.7, 5.35, 6.8, 14.7, 16.1, 78.2

