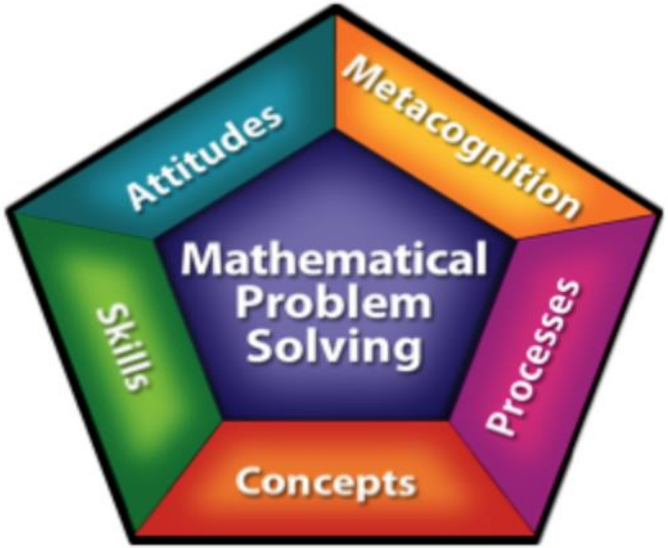
Math in Focus

Math In Focus

Emphasis on Problem Solving



Houghton Mifflin Harcourt

Online Resources:
Think Central

Parent online access includes: Student texts, virtual manipulatives, videos

Online Parent-Student Login In Information:

http://www-k6.thinkcentral.com or Math Resources page on school homepage

Usernames (by school and grade level):

GrafflinK, Grafflin1, Grafflin2, Grafflin3, Grafflin4

RoaringBrookK, RoaringBrook1, RoaringBrook2, RoaringBrook3, RoaringBrook4

WestorchardK, Westorchard1, Westorchard2, Westorchard3, Westorchard4

Bell5, SevenBridges5

Password for all parents: MathInFocus (no spaces)

Levels of Mastery

Challenging work

It is important to allow your children to struggle with challenging concepts and come to school with imperfect homework. See youcubed.org for research on this topic.

Math in Focus provides students with opportunities to

- learn and practice basic computation skills
- use those skills in direct application problems
- approach novel problems, allowing them to strengthen their ability to generalize skills and “connect the dots” between mathematical concepts

Levels of Mastery

The ability to apply concepts to novel situations

The ability to apply concepts in problem solving situations.

The ability to perform computations without the support of concrete materials.

The ability to perform computations with the support of concrete materials.

A Deeper Look at the Levels

Basic Computation Questions (with or without the use of manipulatives): These are questions that can be answered using a known fact or a standard, frequently practiced procedure. These questions are found in the bottom two tiers of the mastery chart.

Direct Application Questions: These are questions that require students to apply content knowledge in application settings which are similar to those seen throughout the chapter. These types of questions are found in the center of the mastery chart.

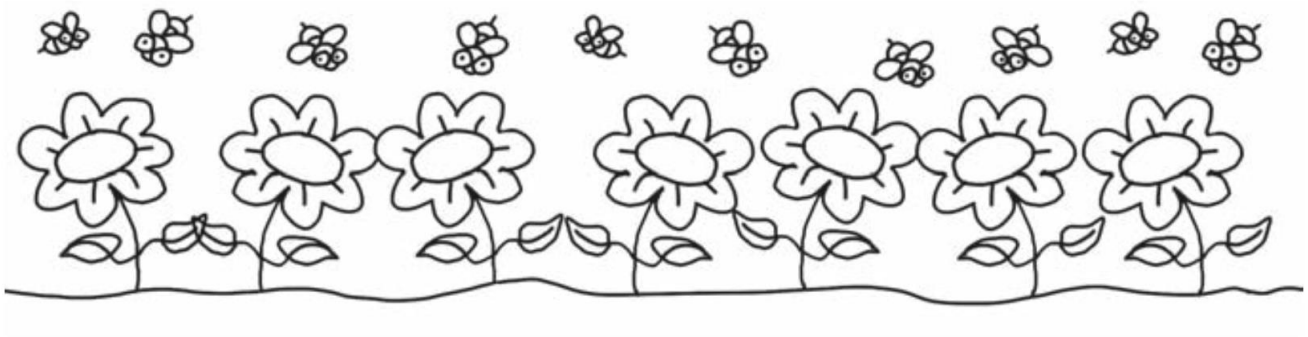
Novel Questions: These are questions that require students to transfer deep understanding to problems presented in novel situations. They are intended to give students the opportunity to generalize skills and “connect the dots” between mathematical concepts. These types of questions are found at the top of the mastery chart.

Grade level examples:
Levels of Mastery

Kindergarten

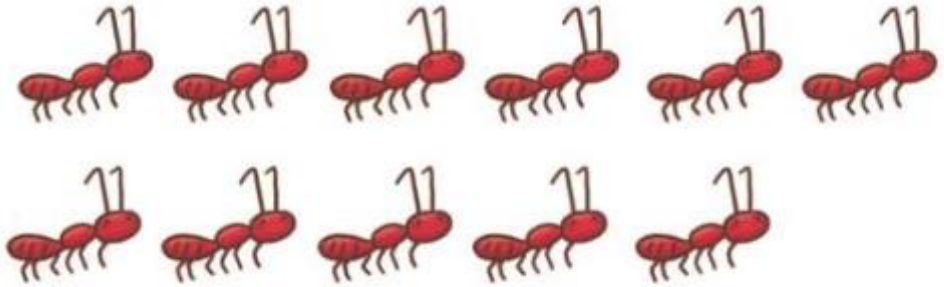
Basic Computation

2 How many? Count and write.



Direct Application

2



Count how many. _____

How many more to make 15? _____

Novel Application

Count how many. _____

How many more to make 15? _____

Grade 1

Chapter 8: Addition & Subtraction to 20

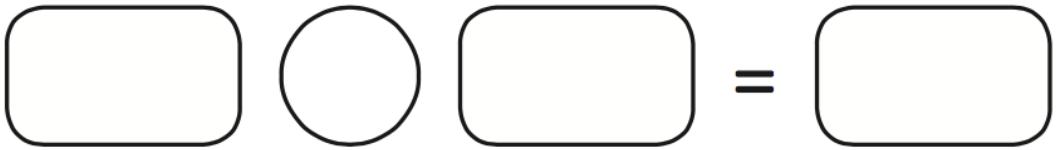
Basic Computation

What is 6 + 13?

Ⓐ 9 Ⓑ 10 Ⓒ 13 Ⓓ 19

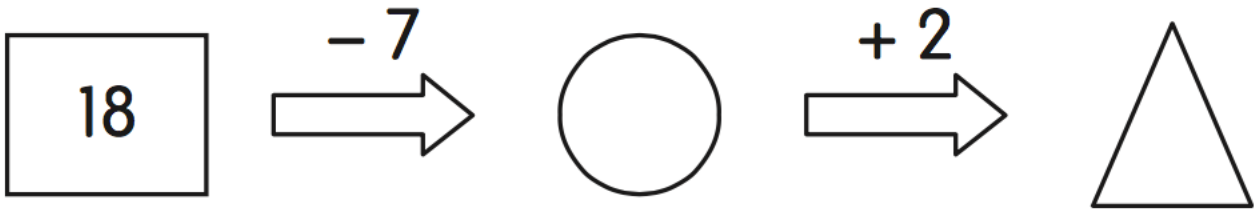
Direct Application

11. Alex has 17 stickers.
Bob has 9 fewer stickers than Alex.
How many stickers does Bob have?



Bob has _____ stickers.

Novel Application



What does  stand for?

Grade 2

Multiplication Tables of 2, 5, and 10

Lesson 1	Multiplying 2: Skip-Counting
Lesson 2	Multiplying 2: Using Dot Paper
Lesson 3	Multiplying 5: Skip-Counting
Lesson 4	Multiplying 5: Using Dot Paper
Lesson 5	Multiplying 10: Skip-Counting and Using Dot Paper
Lesson 6	Odd and Even Numbers

Basic Computation

Questions that can be answered using a known fact or a standard, frequently practiced procedure.

$$8 \times 2 = \_\_\_\_\_$$

Direct Application

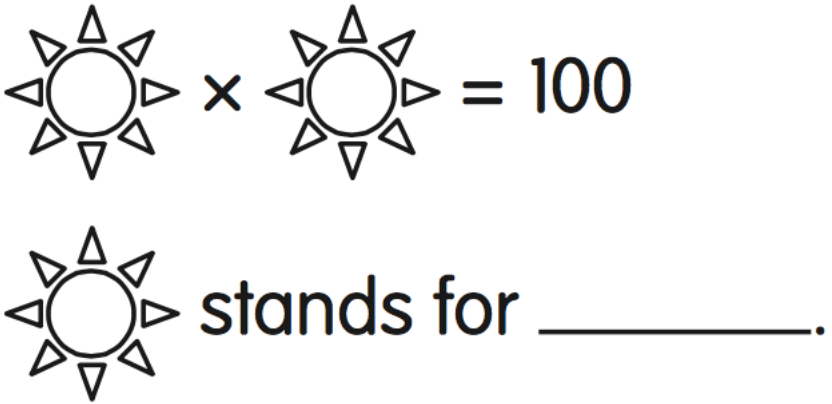
Questions that require students to apply content knowledge in application settings which are similar to those seen throughout the chapter.

Miss Rogers divides 40 students into equal teams of 10.

She has _____ teams of 10 students each.

Novel Application

Questions that require students to transfer deep understanding to questions presented in novel situations.



Grade 3

Chapter 14: Fractions

Basic Computation

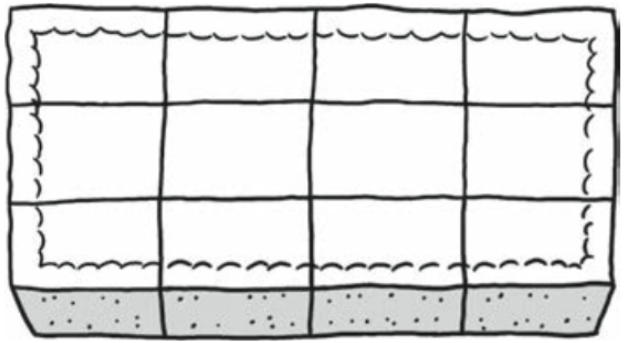
Find the missing numerator.

$$\frac{2}{3} = \frac{\square}{6}$$

Questions that can be answered using a known fact or a standard, frequently practiced procedure.

Direct Application

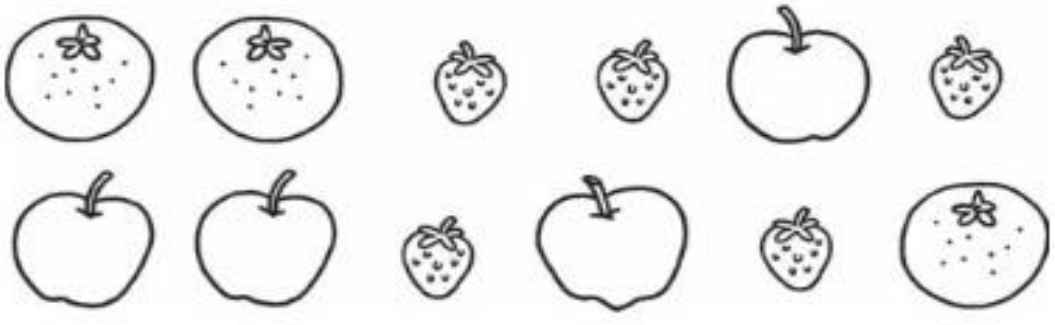
A loaf of bread is cut into 12 equal pieces.
Anne eats 3 pieces.
What fraction of the bread is left?
Shade the figure to show your answer.
Write your answer in simplest form.



Questions that require students to apply content knowledge in application settings which are similar to those seen throughout the chapter.

Novel Application

2. What fraction of the fruit is apples?



Questions that require students to transfer deep understanding to questions presented in novel situations.

Grade 4

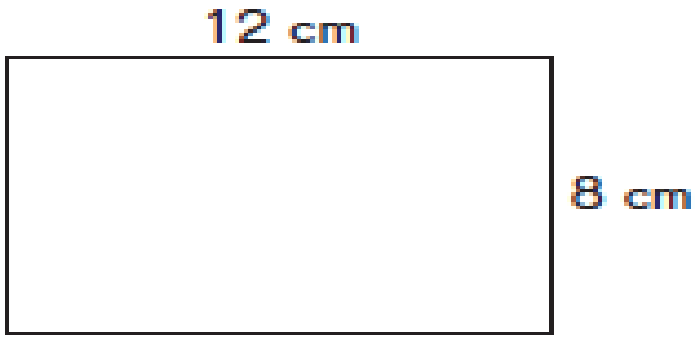
Chapter 13

Area and Perimeter

12.1 Area of a Rectangle
12.2 Rectangles and Squares
12.3 Composite Figures
12.4 Using Formulas for Area and Perimeter

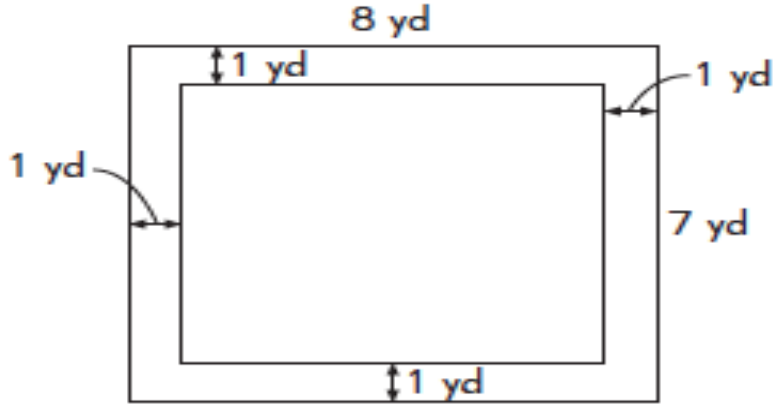
Basic Computation

Find the area of the rectangle.



Direct Application

A carpet is placed on a rectangular floor as shown in the diagram. Find the area of the floor not covered by the carpet.



Novel Application

3. The figure is made up of two identical squares and has a perimeter of 42 inches. What is the area of one square?

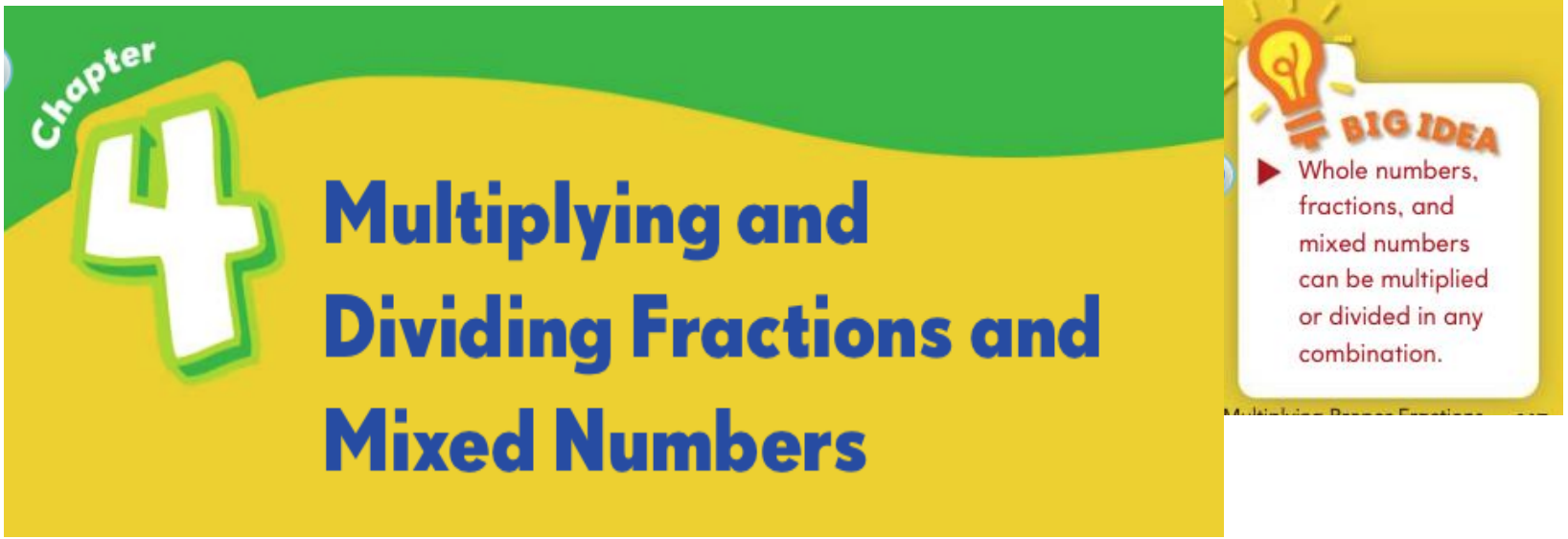
(A) 7 $in.^2$

(B) 28 $in.^2$

(C) 49 $in.^2$

(D) 84 $in.^2$

Grade 5


Chapter
4
Multiplying and Dividing Fractions and Mixed Numbers
BIG IDEA
Whole numbers, fractions, and mixed numbers can be multiplied or divided in any combination.

Basic Computation

Questions that can be answered using a known fact or a standard, frequently practiced procedure.

Multiply $\frac{4}{5}$ by $\frac{15}{16}$. Give your answer in simplest form.

(A) $\frac{3}{4}$ (B) $\frac{60}{80}$ (C) $\frac{19}{21}$ (D) $\frac{20}{21}$

Direct Application

Questions that require students to apply content knowledge in application setting which are similar to those seen throughout the chapter.

Claire picked some apples. She used $\frac{2}{5}$ of the apples to make jam. She gave $\frac{1}{3}$ of the remainder to her neighbor. What fraction of the apples did she give to her neighbor?

Novel Application

Questions that require students to transfer deep understanding to questions presented in novel situations.

Klein read 30 pages of a book on Monday and $\frac{1}{8}$ of the book on Tuesday. He completed the remaining $\frac{1}{4}$ of the book on Wednesday. How many pages are there in the book?