

Equivalence in Multiplication

Look at this equation:

$$6 \times 9 = 3 \times 18$$

1. Does doubling and halving always work? _____
2. Create a representation that shows your thinking.



Doubling and Halving

Ten dog walkers each walk 4 dogs. If half of the dog walkers do not show up for work, how many dogs do the rest of the dog walkers have to walk?

NOTE Students create equivalent expressions in multiplication and draw a representation to show that it is true.

SMH 33–34

1. Fill in this equation to match the story.

$$10 \times 4 = \underline{\hspace{2cm}}$$

2. Create a representation to show that your equation is true.

Ongoing Review

3. What number makes this equation true?

$$6 \times 8 = 3 \times \underline{\hspace{2cm}}$$

- A.** 4 **B.** 10 **C.** 16 **D.** 18

Tripling and Thirthing

1. Fill in the missing numbers to make these equations true.

$$2 \times 9 = 6 \times \underline{\hspace{2cm}}$$

$$15 \times 4 = 5 \times \underline{\hspace{2cm}}$$

$$7 \times 6 = \underline{\hspace{2cm}} \times 2$$

2. Choose one of these equations and write a story problem about it.

3. Create a representation that shows the following:

When one number is tripled and the other number is divided by 3, the product is the same.



A Story About Tripling and Thirthing

NOTE Students create a story and a representation for equivalent multiplication expressions.

SMH 33–34

1. Make up a story problem to represent this equation:

$$3 \times 5 = 1 \times 15$$

2. Create a representation to show that the equation is true.

Ongoing Review

3. What number makes this equation true?

$$8 \times 5 = \underline{\hspace{2cm}} \times 20$$

- A.** 4 **B.** 3 **C.** 2 **D.** 1



True or False?

Look at the equations below. Without finding the exact answer, determine whether each equation is true or false. Circle T or F.

1. $3 \times 10 = 6 \times 5$ T or F

2. $10 \times 12 = 11 \times 11$ T or F

3. $20 \times 15 = 5 \times 30$ T or F

4. $6 \times 18 = 2 \times 36$ T or F

5. $4 \times 5 = 12 \times 10$ T or F

NOTE Students are working on making equivalent multiplication expressions. They are looking for patterns and relationships in these equations that can help them determine whether the equations are true or false.

SMH 33-34

Fill in the blank to make each equation true.

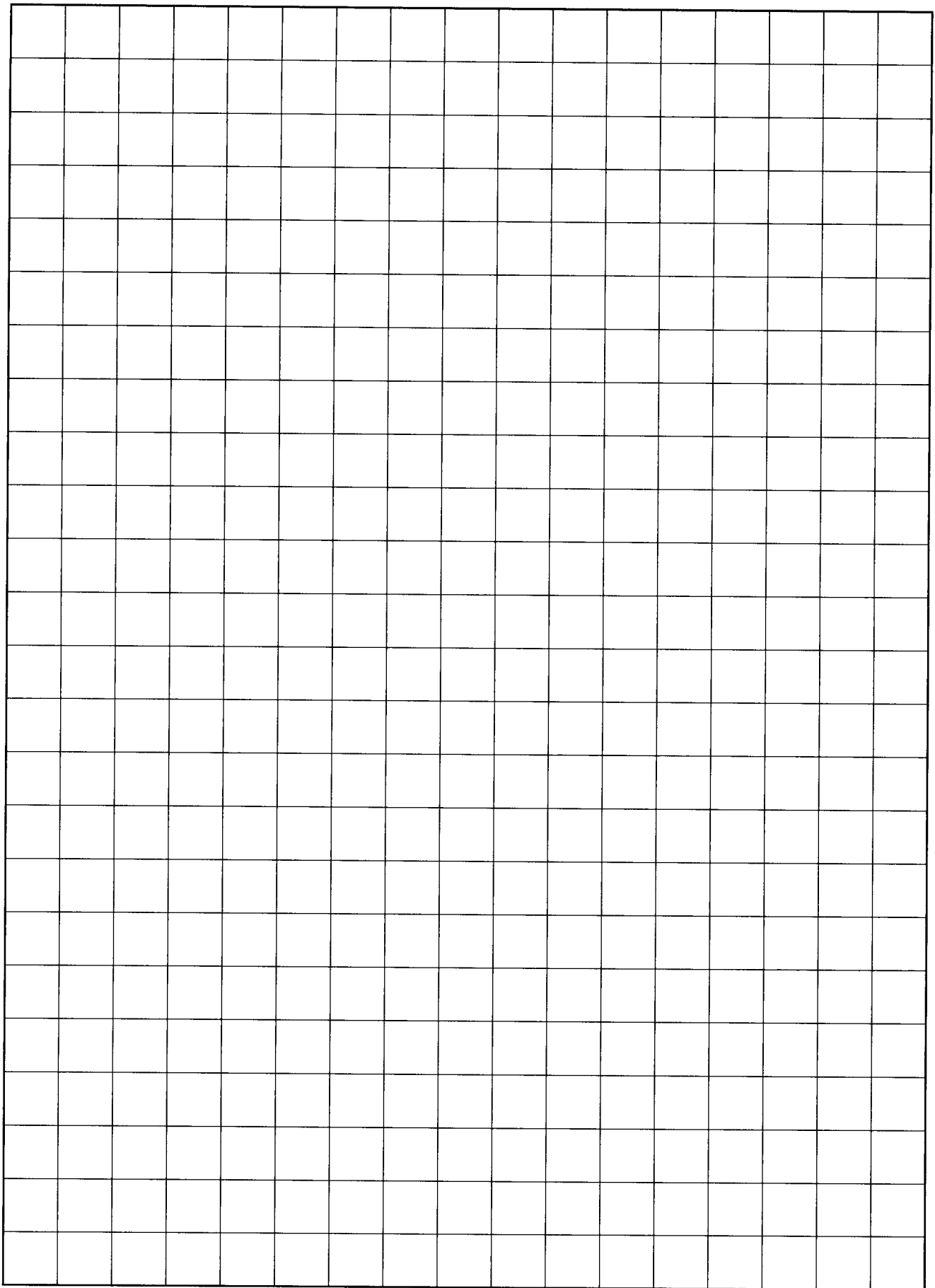
6. $16 \times \underline{\hspace{2cm}} = 8 \times 8$

7. $2 \times 24 = 1 \times \underline{\hspace{2cm}}$

8. $1 \times 6 = 3 \times \underline{\hspace{2cm}}$

9. $6 \times 10 = 2 \times \underline{\hspace{2cm}}$

10. $5 \times 3 \times 2 = \underline{\hspace{2cm}} \times 2$



Finding Equivalent Expressions for 40×32



1. Find as many different ways as you can to make this equation true.

$$40 \times 32 = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

2. How are the numbers in your new expressions related to 40×32 ?



Equivalent Multiplication Expressions

NOTE Students create equivalent multiplication expressions.

SMH 33–34

Fill in the blank to make each equation true.

- $22 \times 6 = \underline{\hspace{2cm}} \times 12$
- $12 \times 9 = 3 \times \underline{\hspace{2cm}}$
- $8 \times \underline{\hspace{2cm}} = 4 \times 16$
- $4 \times 8 = 1 \times \underline{\hspace{2cm}}$
- $14 \times 6 = 42 \times \underline{\hspace{2cm}}$
- Make up four equations that contain equivalent multiplication expressions.
- Choose one of your equations from Problem 6 and explain how you know that it is true.

Ongoing Review

8. $6 \times 64 = \underline{\hspace{2cm}}$
- A.** 70 **B.** 348 **C.** 364 **D.** 384



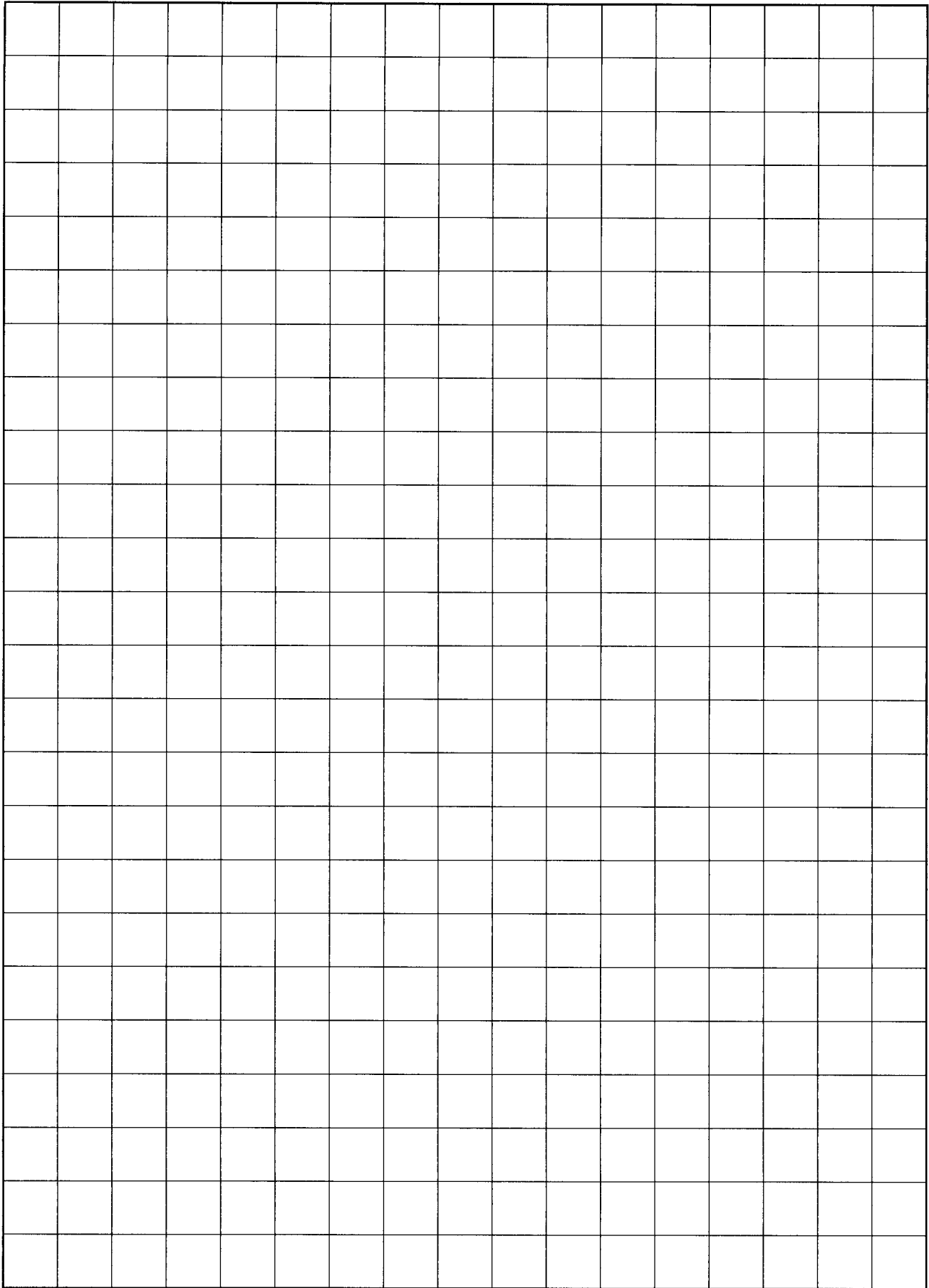
Equivalence in Multiplication

Find as many different ways as you can to make this equation true.

$$24 \times 18 = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

NOTE Students make equivalent multiplication expressions. They look for patterns and relationships in these equivalent expressions.

SMH 33-34



Equivalence in Division

$$60 \div 10 = 120 \div \underline{\hspace{2cm}}$$

1. Fill in the missing number to make the equation above true.

2. Write a story problem for the equation.

3. Make a sketch or diagram of your story.

4. Write more division expressions that fit this equation:

$$60 \div 10 = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}}$$



Comparing Batting Averages

NOTE Students review comparing decimals.

SMH 61–62

Who had the better batting average?
Circle the higher batting average.

1. Ted Williams: 0.344 or Lou Gehrig: 0.340
2. Joe DiMaggio: 0.325 or Willie Mays: 0.302
3. Hank Aaron: 0.305 or Babe Ruth: 0.342
4. Rogers Hornsby: 0.358 or Ty Cobb: 0.366
5. Rod Carew: 0.328 or Stan Musial: 0.331
6. Reggie Jackson: 0.262 or Yogi Berra: 0.285
7. Johnny Bench: 0.267 or Mickey Mantle: 0.298
8. Jackie Robinson: 0.311 or Roberto Clemente: 0.317

Multiplication:

How Did I Solve It? (page 1 of 2)

Choose one or more of the following problems to solve.
(Solve additional problems on a separate sheet of paper.)

$75 \times 42 =$

$275 \times 8 =$

$186 \times 34 =$

$63 \times 24 =$

$134 \times 26 =$

1. Solve the problem in two ways. Use clear and concise notation in your solution.

Problem: _____

First way:

Second way:

Multiplication:

How Did I Solve It? (page 2 of 2)

2. Write the problem you solved on page 13 and your first steps. Your partner will use each of your first steps to finish the problem.

Your partner's name: _____

Problem: _____

First step of first solution:

First step of second solution:

3. Compare solutions with your partner. How are your solutions the same? How are they different?



Ordering Decimals

Place the decimals in order on the number line below.

NOTE Students practice placing decimals in order on a number line.

SMH 61-62

- | | |
|------------------|-----------------|
| 1. 1.9 | 2. 0.284 |
| 3. 1.899 | 4. 0.16 |
| 5. 0.235 | 6. 0.773 |
| 7. 0.821 | 8. 2.045 |
| 9. 0.492 | 10. 2.16 |
| 11. 2.492 | 12. 2.5 |



Name _____

Date _____

How Many People? How Many Teams?

Homework



Multiplication Two Ways

Pick two of these problems to solve. Solve each problem two ways.

NOTE Students show their flexibility and understanding of multiplication by solving problems in two ways.

SMH 30–32

$95 \times 64 =$ $225 \times 25 =$

$187 \times 42 =$ $72 \times 45 =$

1. Problem: _____

First way:

Second way:

2. Problem: _____

First way:

Second way:

Multiplication Problems

Solve at least three of the multiplication problems below. Use clear and concise notation in your solution. (Solve additional problems on a separate sheet of paper.)

$78 \times 27 =$ $54 \times 41 =$ $743 \times 6 =$

$218 \times 15 =$ $145 \times 35 =$ $264 \times 24 =$

1. Problem: _____

2. Problem: _____

3. Problem: _____

Name _____

Date _____

How Many People? How Many Teams?

Daily Practice



Finding Products 1

Solve the following problems. Show your work clearly.

NOTE Students solve multiplication problems and show their solutions.

SMH 30–32

1. $35 \times 92 =$ _____

2. $36 \times 118 =$ _____

Ongoing Review

3. $78 \times 25 =$ _____

A. 9,500

B. 2,000

C. 1,950

D. 1,901



Solving 45×36

1. Solve this problem: $45 \times 36 =$ _____

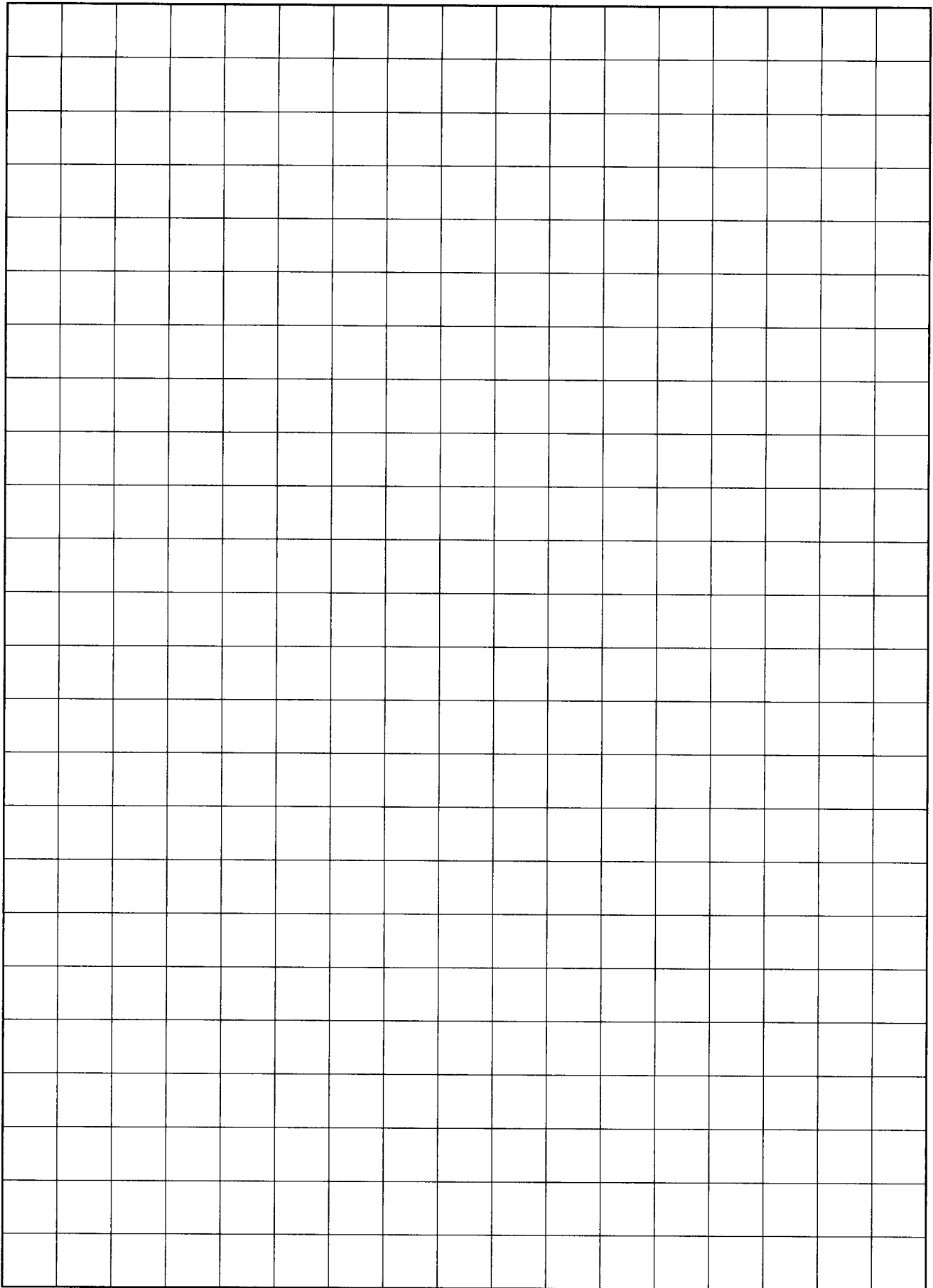
Your solution:

NOTE Students solve 45×36 and then ask someone else at home to solve it. The other person may use the strategy taught in school or may use an alternative method developed to solve multiplication problems easily.

SMH 30–32

2. Ask an older person to solve the same problem and to record their strategy.

Their solution:



Two Algorithms: What Do They Mean? (page 1 of 2)

In both algorithms recorded below, the same problem is solved by breaking the numbers apart by place. With your partner, look closely at the solutions and make sense of what the notation shows.

Solution 1

$$\begin{array}{r}
 142 \\
 \times 36 \\
 \hline
 3,000 \\
 1,200 \\
 60 \\
 600 \\
 240 \\
 + 12 \\
 \hline
 5,112
 \end{array}$$

Solution 2

$$\begin{array}{r}
 1 \\
 21 \\
 142 \\
 \times 36 \\
 \hline
 852 \\
 +4,260 \\
 \hline
 5,112
 \end{array}$$

Use each algorithm to record the solution to 138×24 .

Solution 1

$$\begin{array}{r}
 138 \\
 \times 24 \\
 \hline
 \end{array}$$

Solution 2

$$\begin{array}{r}
 138 \\
 \times 24 \\
 \hline
 \end{array}$$

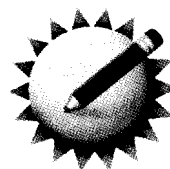
Two Algorithms: What Do They Mean?

(page 2 of 2)



Talk about these questions with your partner. Write your answers.

1. How would you explain to someone else what the numbers in each solution show? What do the small 1s and the small 2 in Solution 2 mean?
2. How are these two notations different from each other? How are they the same?
3. Challenge: Use both algorithms to show the solution to 184×61 .



Finding Products 2

Solve the following problems. Show your work clearly.

NOTE Students solve multiplication problems and show their solutions.

SMH 30–32

1. $225 \times 32 =$ _____

2. $97 \times 63 =$ _____

Ongoing Review

3. $103 \times 26 =$ _____

A. 2,500

B. 2,678

C. 2,978

D. 26,780



Teams

Solve the problems below. Use clear and concise notation in your answers.

NOTE Students solve multiplication problems involving teams.

SMH 30–32

1. There are 64 teams in a basketball tournament. Each team has 14 players. How many basketball players are in the tournament in all?
2. There are 135 teams in a soccer tournament. Each team has 32 players. How many soccer players are in the tournament in all?
3. There are 85 teams in a local softball league. Each team has 24 players. How many softball players are in the league in all?

Solving Multiplication Problems

Solve each problem below in two ways. One of the ways should be breaking the numbers apart by place, using one of the methods from page 21 (showing partial products).

First way:

Second way:

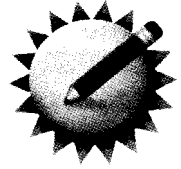
1. $89 \times 42 =$

2. $97 \times 36 =$

3. $105 \times 72 =$

4. $248 \times 40 =$

5. $378 \times 69 =$



Measuring Distance

Solve the problems below, showing your work so that anyone looking at it would know how you solved the problem.

NOTE Students solve story problems involving addition of decimals.

SMH 63–65

1. On Monday, Margaret rollerbladed 4.55 miles. She rollerbladed 2.84 miles on Wednesday and 5.175 miles on Friday. What is the total number of miles she rollerbladed?
2. Renaldo ran 3.2 miles on Tuesday, 2.87 miles on Thursday, and 3.15 miles on Friday. What is the total number of miles he ran?
3. Terrence is preparing for a race. On Monday he bicycled 8.35 miles, and on Wednesday he bicycled 9.65 miles. What is the total number of miles he bicycled?
4. $0.69 \text{ mile} + 0.041 \text{ mile} + 2.03 \text{ miles} = \underline{\hspace{2cm}}$ miles



Squeeze Between

Fit one of the decimals shown on the cards between the pair of decimals in each exercise. Two cards will be left over.

NOTE Students practice ordering decimals.

SMH 61-62

1. 0.6 _____ 0.7

2. 0.25 _____ 0.15

3. 0.425 _____ 0.475

4. 0.075 _____ 0.125

5. 0.55 _____ 0.5

6. 0.675 _____ 0.725

7. 0.275 _____ 0.225

8. 0.025 _____ 0.075

9. 0.715 _____ 0.8

10. 0.4 _____ 0.3

Ongoing Review

11. Which fraction is between 0 and $\frac{1}{2}$?

A. $\frac{3}{2}$

B. $\frac{6}{8}$

C. $\frac{4}{6}$

D. $\frac{3}{8}$



Multiplication and Division Practice

Solve the following problems.

1. Mrs. Gomez has 56 packs of pencils. Each pack has 18 pencils. How many pencils does Mrs. Gomez have in all?
2. Mr. Chi has 340 markers. He wants to put them in bags of 24. How many bags does he need?
3. Ms. Marian has 285 books that she is going to donate to charity. If she puts 16 in a box, how many boxes will she need for all of her books?
4. Ms. Anderson has 123 boxes of books. Each box has 12 books in it. How many books does Ms. Anderson have in all?

NOTE Students practice multiplication and division. They should remember that using the given story context can help them keep track of what they have solved and what they still need to solve.

SMH 30–32, 38–39

Division Practice

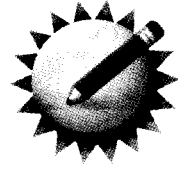
Solve the following problems. Use clear and concise notation in your solutions.

1. $860 \div 64 = \underline{\hspace{2cm}}$

2. There are 774 students at school. They will be placed in teams of 24 for a fundraiser. How many teams will there be?

3. $32 \overline{)1,750}$

4. Georgia has 1,200 baseball cards that she wants to keep in envelopes. If she puts 26 cards in each envelope, how many envelopes does she need?



Sharing Equally

Share the supplies equally among the students in each class.

NOTE Students use number sense to solve division problems. In these questions, the number of items left over does not matter.

Students in Ellen's class: 24

Stickers on each roll: 80

1. The class has 1 roll. Each student gets _____ stickers.
2. The class has 2 rolls. Each student gets _____ stickers.
3. The class has 5 rolls. Each student gets _____ stickers.

Students in Ami's class: 32

Counting cubes in each bucket: 120

4. The class has 1 bucket. Each student gets _____ cubes.
5. The class has 2 buckets. Each student gets _____ cubes.
6. The class has 5 buckets. Each student gets _____ cubes.

Students in Matteo's class: 22

Pens in each box: 240

7. The class has 1 box. Each student gets _____ pens.
8. The class has 2 boxes. Each student gets _____ pens.
9. The class has 5 boxes. Each student gets _____ pens.

Ongoing Review

10. Violet gave the clerk \$5 for a \$3.62 bag of grapes.
How much change did she get back?

A. \$18.10 **B.** \$8.62 **C.** \$2.38 **D.** \$1.38



Dividing by Multiples of 10

Try to solve all the following problems mentally.
If you do not solve a problem mentally, show how you solved it.

NOTE Students practice dividing numbers that are multiples of 10.

1. $120 \div 20 =$

2. $\frac{90}{30}$

3. $500 \div 50 =$

4. $90 \overline{)720}$

5. $4,900 \div 70 =$

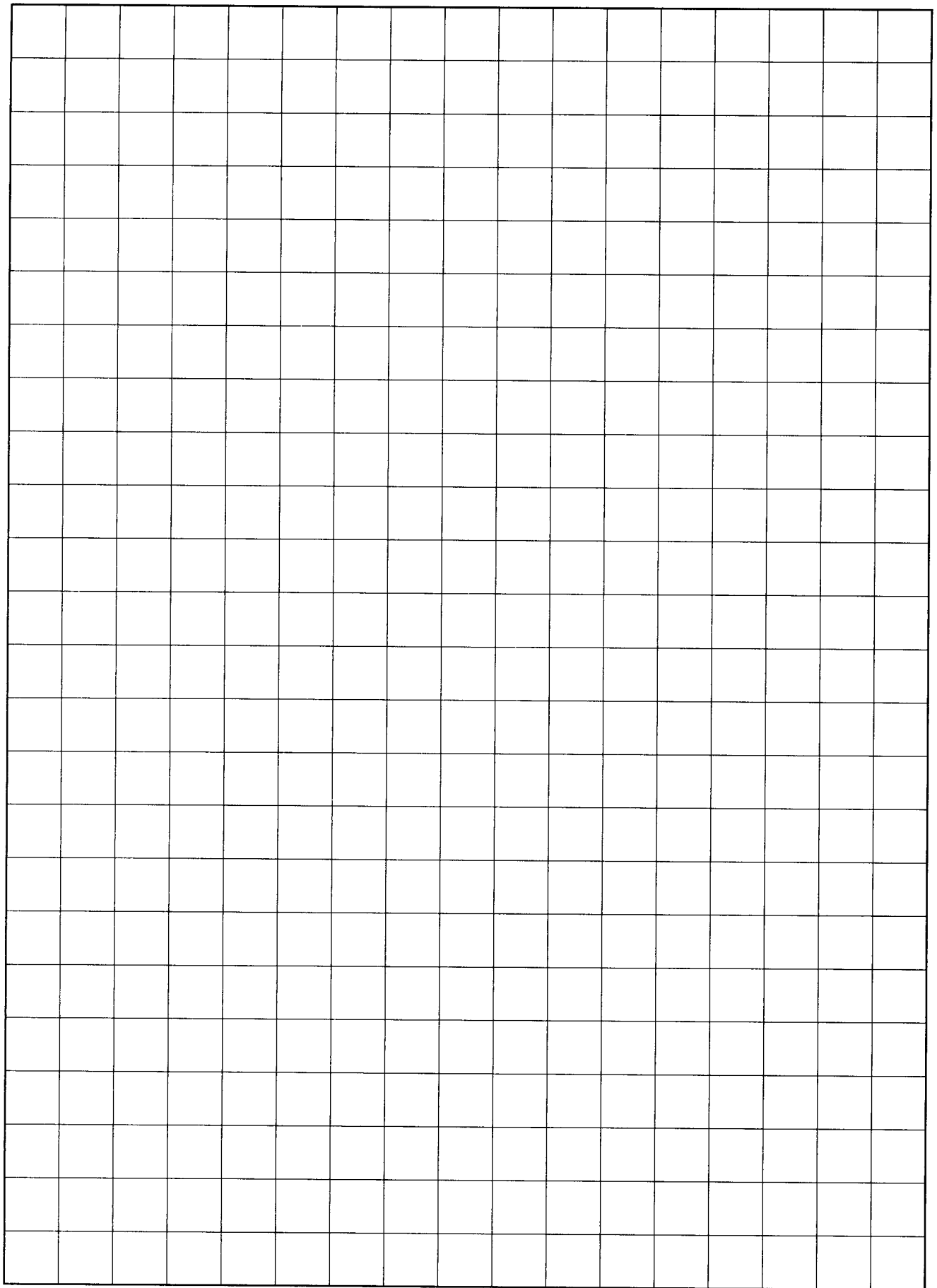
6. $3,000 \div 60 =$

7. $3,200 \div 80 =$

8. $450 \div 30 =$

9. $4,800 \div 20 =$

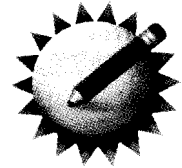
10. $5,600 \div 80 =$



Counting Around the Room

Solve the following problems. Use clear and concise notation in your solutions.

- 1.** The school marching band is counting around the room by 11s. Each person says only one number. The first student says 11, and the last student says 737. How many students counted?
- 2.** The school Math Club counts by a certain number. Each person says only one number. The last student says 910. If there are 35 students in the Math Club by what number are they counting?
- 3.** Mr. Smith's class is counting by 75s, and students can count more than once. The first person says 75, and the last person says 4,050. How many 75s do the students count?
- 4.** There are 32 students in Ms. Chen's class. They count by a certain number, and the last student says 1,280. If each person says only one number, by what number are they counting?



Dividing 500 by 16

Find the quotient and remainder for Problem 1.
Use your answer to solve the other problems.

NOTE Students interpret remainders in division situations.

SMH 37

1. $500 \div 16$ is _____ with a remainder of _____.
2. Vicky needs 500 paper plates. There are 16 plates in a bag. How many bags should she buy? _____
3. Sean has 500 pounds of apples for 16 horses. How many pounds can each horse have? _____
4. Ed has 500 tomato plants. He is putting 16 plants in each box. How many boxes can he fill? _____
5. Sharon is shipping 500 wind-up toy cows. She will put 16 or 17 cows in a box. Describe the shipment of cows.
_____ boxes with 16 cows and _____ boxes with 17 cows

Ongoing Review

6. Which set of multiples are shaded in the table?
 - A. multiples of 3
 - B. multiples of 4
 - C. multiples of 5
 - D. multiples of 6

2	4	6	8
3	6	9	12
4	8	12	16
5	10	15	20



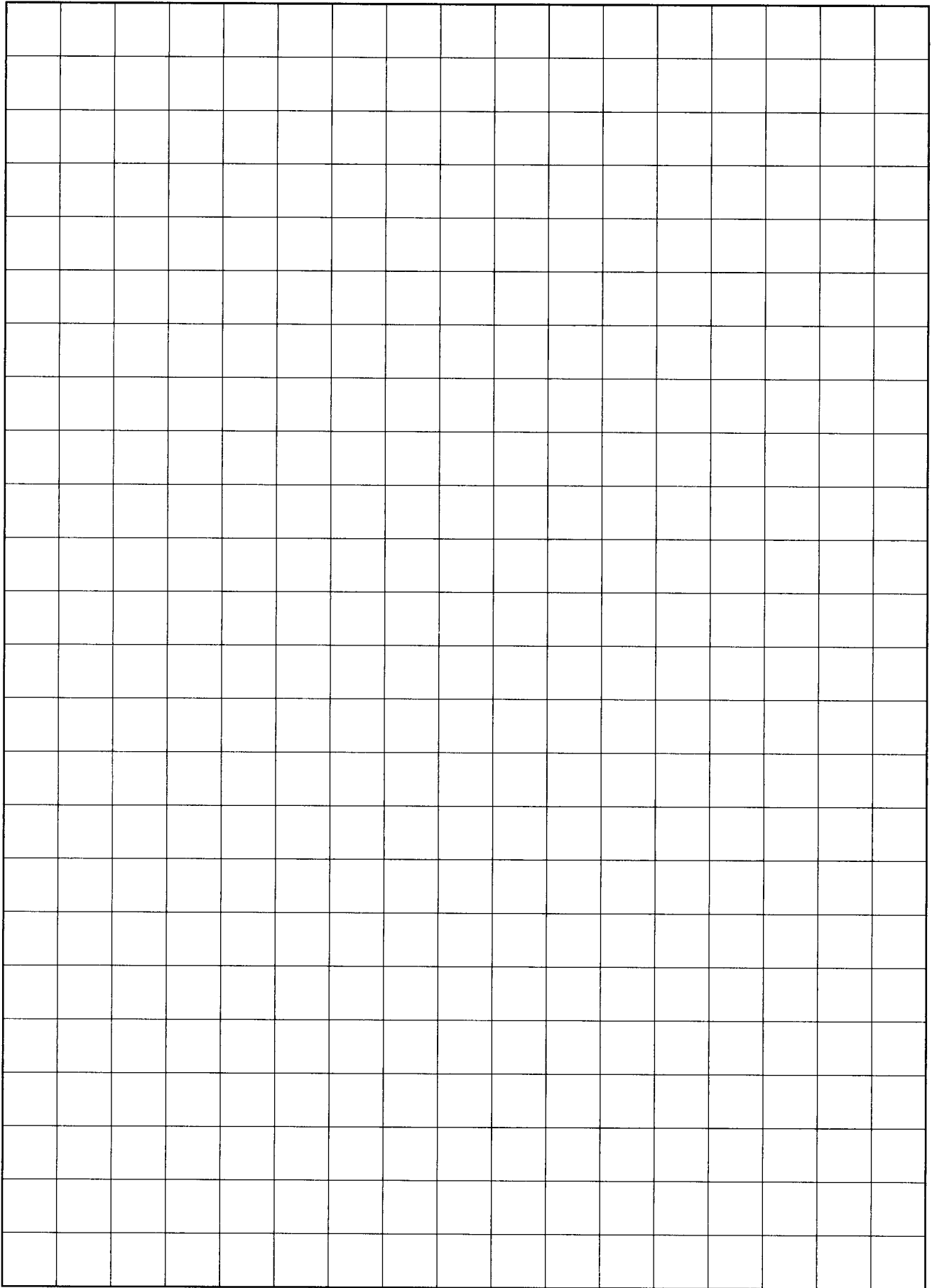
Classroom Counting Puzzles

Solve these problems. Use clear and concise notation in your solutions.

NOTE Students continue to practice solving multiplication and division problems.

SMH 14

1. Ms. Green's class has 29 students and counts by 45s. Each person says only one number. If the first person says 45, what does the last person say?
2. Mr. Black's class counts by 25s. Each person says only one number. The first person says 25, and the last person says 700. How many students are in Mr. Black's class?
3. Mr. Blue's class has 31 students. They count by a certain number, and the last person says 899. If each person says only one number, by what number are they counting?
4. Ms. Yellow's class has 28 students. They count by 65s, and each person says only one number. If the first student says 65, what does the last student say?



Division Starter Problems (page 1 of 3)

For Problems 1–6, choose a starter problem (first step), “a” or “b,” to complete each problem. If you would like to use a different starter problem from the two listed, write it on the blank labeled “c.” Then, use the starter problem you have chosen to solve the final problem.

1. $2,000 \div 42 =$

a. Start by solving $840 \div 42$.

b. Start by solving 40×42 .

c. _____

2. Renaldo has 650 marbles. He wants to put them in bags that hold 28 marbles each. How many full bags of marbles will he have?

a. Start by solving $560 \div 28$.

b. Start by solving 28×10 .

c. _____

Division Starter Problems (page 2 of 3)

3. $30 \overline{)2,554}$

a. Start by solving 30×80 .

b. Start by solving $1,200 \div 30$.

c. _____

4. Tomas made 825 cookies for a bake sale. He puts them in 22 boxes. If each box has the same numbers of cookies, how many cookies are in each box? How many cookies are left over?

a. Start by solving 22×30 .

b. Start by solving $440 \div 22$.

c. _____

Division Starter Problems (page 3 of 3)

5. $499 \div 2$

a. Start by solving 2×200 .

b. Start by solving $500 \div 2$.

c. _____

6. There are 1,080 students at Packer Elementary School. They are organized in 40 equal-sized groups for a field trip. How many students are in each group?

a. Start by solving $800 \div 40$.

b. Start by solving 25×40 .

c. _____

Classroom Supplies

 (page 1 of 2)

Use the information below to answer the following questions. Record your work on a separate sheet of paper.

Item	Unit	Cost
Pencils	12 per package	\$0.99
Pens	12 per package	\$1.98
Erasers	10 per package	\$1.29
Glue sticks	18 per package	\$3.49

Grade	Number of Students
Third	80
Fourth	100
Fifth	150

- 1.** The third-grade teachers want to purchase 3 pencils for each student.
How many packages of pencils do they need to buy?

What is the total cost?

- 2.** The third-grade teachers want to purchase 1 glue stick for each student.
How many packages of glue sticks do they need to buy?

What is the total cost?

- 3.** The fourth-grade teachers want to purchase 2 erasers for each student.
How many packages of erasers do they need to buy?

What is the total cost?

- 4.** The fourth-grade teachers want to buy 2 pencils and 1 glue stick for each student.
How many packages of pencils do they need to buy?
Of glue sticks?

What is the total cost?

Classroom Supplies (page 2 of 2)

5. The fifth-grade teachers want to buy 2 pencils and 2 pens for each student.

How many packages of pencils do the teachers need to buy?

Of pens?

What is the total cost?

6. A local business gave the fifth-grade teachers \$50.00 for classroom supplies. Whatever money the teachers do not spend, they have to return, so they want to spend as much as possible on supplies.

What items could the teachers buy?

How many of each item would each student get?

What is the total cost?

How much money do the teachers have to return?



Finish It Up!

You are given the first step for solving each problem. Use this step to find the solution. Show your work on another sheet of paper.

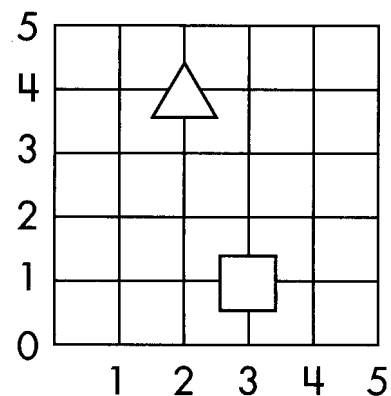
NOTE Students solve multiplication and division problems, using a given first step.

SMH 30–32, 38–39

- Find 401×13 by first solving 400×10 .
 $401 \times 13 = \underline{\hspace{2cm}}$
- Find 74×23 by first solving 2×74 .
 $74 \times 23 = \underline{\hspace{2cm}}$
- Find 8×643 by first solving 8×600 .
 $8 \times 643 = \underline{\hspace{2cm}}$
- Find $342 \div 5$ by first solving $300 \div 50$.
 $342 \div 5 = \underline{\hspace{2cm}}$
- Find $871 \div 16$ by first solving 16×50 .
 $871 \div 16 = \underline{\hspace{2cm}}$

Ongoing Review

- Each square on the grid shows 1 square block. What is the shortest distance from the square to the triangle?
 - 3 blocks
 - 5 blocks
 - 4 blocks
 - 7 blocks





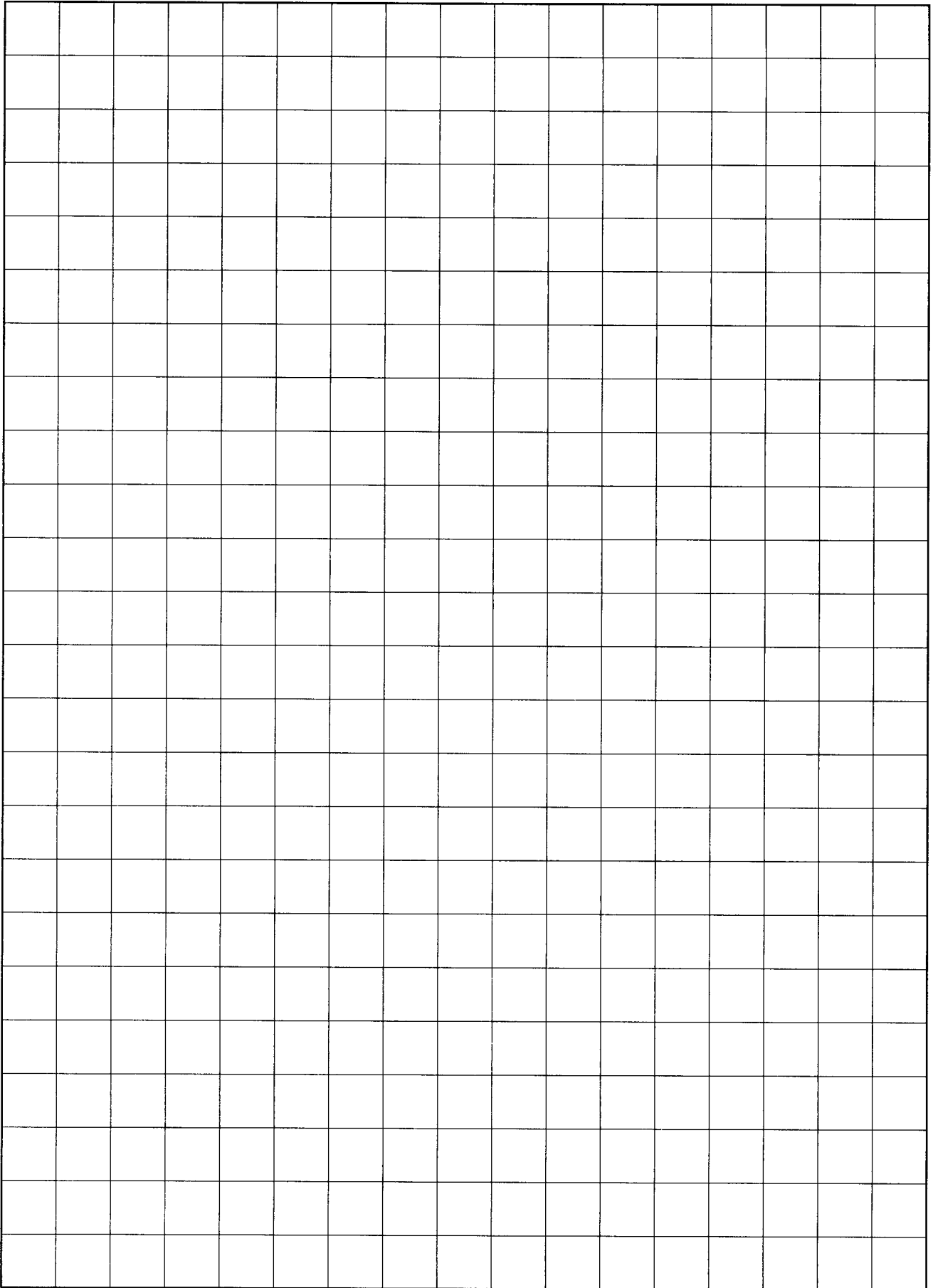
Counting Puzzles

Solve these problems. Use clear and concise notation in your solutions.

NOTE Students solve division problems.

SMH 38–39

1. Ms. Jones's class has 26 students and they count by the same number. Each student says only one number. The last student to count says 1,040. By what number are they counting?
2. Mr. Smith's class counts by 75s. Each student says only one number. The last student to count says 2,025. How many students counted?
3. Ms. Plant's room counts by 42s. Each student says only one number. The first student says 42, and the last student says 1,218. How many students counted?





Different First Steps

Write two different first steps that you could use to solve each problem. Choose one of your first steps and find the solution. Show your work on another sheet of paper.

NOTE Students show two different first steps for the same problem.

SMH 30–32, 38–39

1. To find 73×29 , I could start with _____ or _____.

The answer is _____.

2. To find $87 \div 15$, I could start with _____ or _____.

The answer is _____.

3. To find $578 \div 4$, I could start with _____ or _____.

The answer is _____.

4. To find 482×7 , I could start with _____ or _____.

The answer is _____.

5. To find $318 \div 26$, I could start with _____ or _____.

The answer is _____.

Ongoing Review

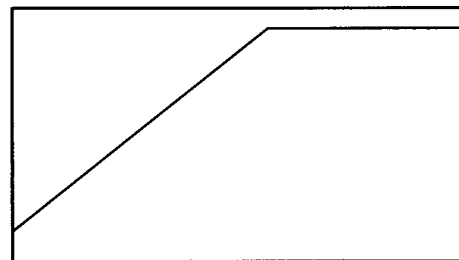
6. Which plant height measurements would make this graph?

A. 1, 3, 5, 8, 8

C. 1, 3, 3, 5, 7

B. 1, 1, 1, 4, 4

D. 1, 5, 6, 6, 8





Multiplying Money

Solve each problem.

NOTE Students multiply amounts of money that are close to the next dollar.

SMH 30–32

1.
$$\begin{array}{r} \$9.99 \\ \times 12 \\ \hline \end{array}$$

2. $\$7.98 \times 5 = \underline{\hspace{2cm}}$

3. $\$14.97 \times 6 = \underline{\hspace{2cm}}$

4.
$$\begin{array}{r} \$29.99 \\ \times 6 \\ \hline \end{array}$$

5. $\$34.99 \times 3 = \underline{\hspace{2cm}}$

Division:

How Did I Solve It? (page 1 of 2)

Choose one or more of the following problems to solve.
(Solve additional problems on a separate sheet of paper.)

$498 \div 9 =$

$376 \div 6 =$

$685 \div 34 =$

$2,837 \div 52 =$

$3,989 \div 49 =$

1. Solve the problem in two ways. Use clear and concise notation in your solution.

Problem: _____

First way:

Second way:

Division:

How Did I Solve It? (page 2 of 2)

2. Write the problem you solved on page 47 and the 2 first steps you used to solve it. Your partner will use each of your first steps to finish the problem.

Your partner's name: _____

Problem: _____

First step of first solution:

First step of second solution:

3. Compare solutions with your partner. How are your solutions the same? How are they different?



Making Estimates

NOTE Students use multiples of 10, familiar combinations, and doubling strategies to make estimates for more difficult multiplication and division problems.

Estimate the products.

1. Problem: 34×62

$30 \times 62 =$ _____

3. Problem: 79×61

$80 \times 61 =$ _____

5. Problem: 29×58

$30 \times 60 =$ _____

7. Problem: 32×418

$32 \times 400 =$ _____

9. Problem: 673×76

$700 \times 80 =$ _____

2. Problem: $843 \div 8$

$840 \div 8 =$ _____

4. Problem: $2,764 \div 7$

$2,800 \div 7 =$ _____

6. Problem: $719 \div 19$

$720 \div 20 =$ _____

8. Problem: $463 \div 82$

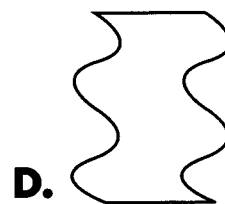
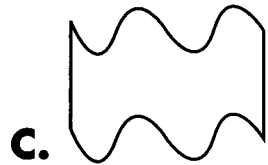
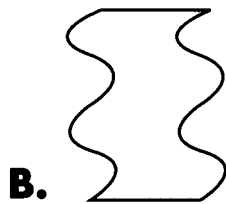
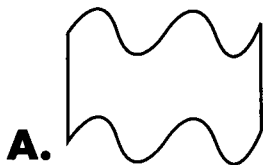
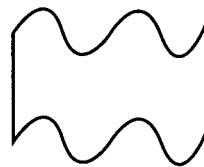
$480 \div 80 =$ _____

10. Problem: $3,128 \div 64$

$3,000 \div 60 =$ _____

Ongoing Review

11. What does this shape look like after a right turn of 90 degrees?



Name _____

Date _____

How Many People? How Many Teams?

Homework



Division Practice

Solve each problem. Use clear and concise notation.

NOTE Students solve division problems.

SMH 38-39

1. $514 \div 8 =$ _____

2. $559 \div 28 =$ _____

3. $874 \div 21 =$ _____

4. $691 \div 33 =$ _____



Division Two Ways

Solve each problem two ways.
Show each solution clearly.

NOTE Students solve division problems in two different ways.

SMH 38–39

1. $768 \div 32 =$ _____

First way:

Second way:

2. $968 \div 48 =$ _____

First way:

Second way:

Ongoing Review

3. Which number is not a factor of 3,000?

A. 35

B. 50

C. 100

D. 150

Field Day: Third to Fifth Grades

Use the information on the charts below to solve the problems on pages 53 and 57–60.

Note: Teams compete against their own grade level, unless otherwise stated.

Intermediate Grades at Hancock Elementary School

Third Grade

Teacher	Number of Students
Mr. Willis	22
Mrs. Alvarez	21
Ms. Manning	19
Ms. Garcia	21

Fourth Grade

Teacher	Number of Students
Ms. Voight	28
Ms. Wilkos	30
Mrs. Chong	29
Mr. Anderson	28

Fifth Grade

Teacher	Number of Students
Mrs. Yan	30
Mr. Clark	32
Ms. Dwyer	31
Mrs. Brennan	28
Mrs. Driver	29

Field Day Refreshments

The Hancock PTA wants to purchase at least one nutrition bar and at least one drink for each student for the Third to Fifth Grade Field Day. They have budgeted \$200 for these refreshments.

The table shows the cost of items, which cannot be purchased individually. Also, refer to the information given on page 52.

Item	Cost
Nutrition Bar	\$3.99 for box of 24
Fruit Juice (8 oz)	\$3.29 for box of 12
Bottled Water (8 oz)	\$4.99 for case of 36

1. What should the PTA order? How many boxes or cases of each item will the PTA need to order?
2. Find the total cost of the order.
Show your work below.



Large and Small Hunt

In each row, circle the largest product or quotient. Then underline the smallest.

NOTE Students use various strategies for solving multiplication and division problems.

SMH 30–32, 38–39

1. 46×77 or 67×51 or 39×86

2. $1,120 \div 14$ or $1,680 \div 24$ or $3,400 \div 34$

Ongoing Review

3. What might this data show?
- A. the heights of first graders
 - B. the heights of houses
 - C. the heights of basketball players
 - D. the heights of dogs

Individual	Inches
A	78
B	84
C	80
D	75
E	82
F	84



Multiplication and Division Practice

Try to solve all of the following problems mentally. If you do not solve a problem mentally, show how you solved it.

NOTE Students practice multiplication and division using multiples of 10 or 100. Students should try to solve these problems mentally.

1. $5 \times 800 = \underline{\hspace{2cm}}$

2.
$$\begin{array}{r} 70 \\ \times 6 \\ \hline \end{array}$$

3. $375 \times 10 = \underline{\hspace{2cm}}$

4. $13 \times 15 = \underline{\hspace{2cm}}$

5. $15 \times 40 = \underline{\hspace{2cm}}$

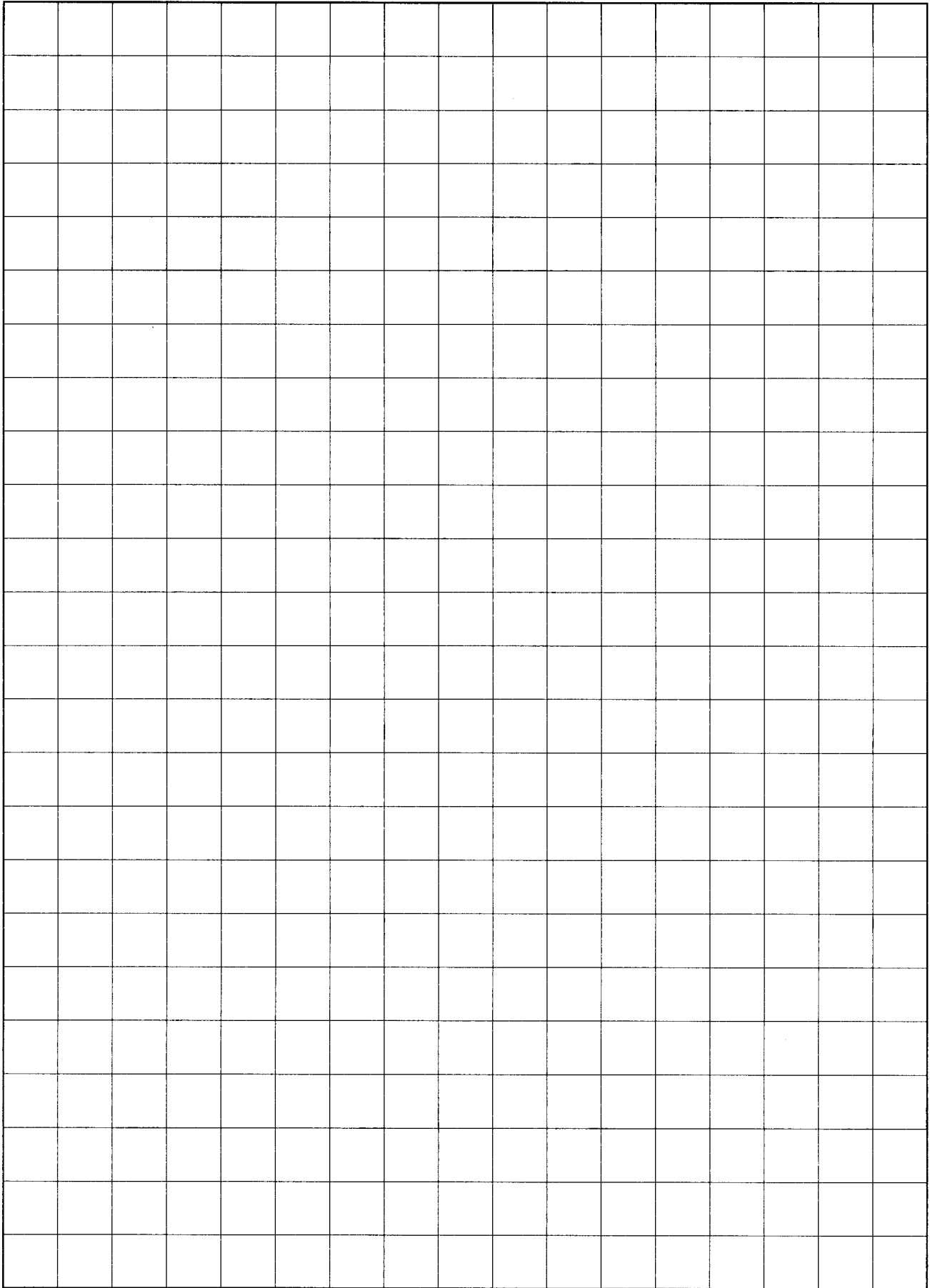
6. $540 \div 9 = \underline{\hspace{2cm}}$

7. $240 \div 8 = \underline{\hspace{2cm}}$

8. $420 \div 6 = \underline{\hspace{2cm}}$

9. $850 \div 17 = \underline{\hspace{2cm}}$

10. $420 \div 3 = \underline{\hspace{2cm}}$



How Many People? How Many Teams?

Field Day Activities: Relay Race

Teams of 8 students compete in the relay race. How many teams are in each grade? If there are extra students, write how many students are not on teams.

Refer to the information given on page 52. Complete the chart below. Use the space under the chart to show your work.

Grade	Number of Teams	Students Not on a Team
Third		
Fourth		
Fifth		

How Many People? How Many Teams?

Field Day Activities: Kickball

There will be 11 teams at each grade level for the kickball games. This time, everyone needs to be on a team.

Refer to the information given on page 52. Complete the chart below. Use the space under the chart to show your work.

Grade	Number of Students on a Team
Third	
Fourth	
Fifth	

Field Day Activities: Tug of War

The final activity will be a gigantic tug of war. All of the fourth graders will be on one side. All of the fifth graders will be on the other side. The third graders will be split up so that the two sides have an equal number of students.

Refer to the information given on page 52. Answer the following questions. Show your work below.

1. How many third graders will be with fourth graders? _____
2. How many third graders will be with fifth graders? _____
3. What will be the total number of students on each team? _____



Two-Part Problems

Each problem has two parts. You'll need the first answer to solve the second problem.

NOTE Students use multiplication and division to solve word problem situations, some of which have remainders.

SMH 30–32, 38–39

- 1. PART 1** Suppose that there are 48 balloons in a bag. If you buy 10 bags, how many balloons will you have? _____

PART 2 There are 37 people coming to your party. How many balloons can each person have? _____
- 2. PART 1** A factory made 1,800 yellow duck buttons. They put four on each card. How many cards were filled? _____

PART 2 The factory put 24 cards in each box. How many boxes were filled? _____
- 3. PART 1** You and 8 friends wash 57 cars. Suppose that you charge \$12 per car. How much money will you earn? _____

PART 2 If you share what you earn with your 8 friends, how much money will each person get? _____

Ongoing Review

- 4.** Which fraction is equivalent to $\frac{1}{2}$?

A. $\frac{1}{4}$ **B.** $\frac{2}{8}$ **C.** $\frac{4}{16}$ **D.** $\frac{4}{8}$
- 5.** Which fraction is equivalent to $\frac{3}{4}$?

A. $\frac{6}{6}$ **B.** $\frac{6}{8}$ **C.** $\frac{6}{12}$ **D.** $\frac{3}{9}$



More Multiplication and Division Practice

NOTE Students practice multiplication and division using multiples of 10 or 100. Students should try to solve these problems mentally.

Try to solve all of the following problems mentally. If you do not solve a problem mentally, show how you solved it.

1. $100 \times 23 = \underline{\hspace{2cm}}$

2. $25 \times 700 = \underline{\hspace{2cm}}$

3. $3 \times 400 = \underline{\hspace{2cm}}$

4.
$$\begin{array}{r} 150 \\ \times 8 \\ \hline \end{array}$$

5. $1,600 \times 5 = \underline{\hspace{2cm}}$

6. $1,800 \div 900 = \underline{\hspace{2cm}}$

7. $2,600 \div 13 = \underline{\hspace{2cm}}$

8. $3,500 \div 70 = \underline{\hspace{2cm}}$

9. $25 \overline{)900}$

10. $6,000 \div 12 = \underline{\hspace{2cm}}$

Field Day Problems

Solve each problem. Show your work.

- 1.** For the water balloon toss, the PTA needs to buy 8 bags of balloons. Each bag has 175 balloons in it and costs \$2.49.

How many individual balloons does the PTA need to buy? _____

How much will the PTA spend on balloons? _____

- 2.** The PTA needs to buy 50 batons for the relay races. Batons can be ordered in packages of 6. Each package costs \$4.99.

How many packages of batons does the PTA need to order? _____

How much will the PTA spend on batons? _____

- 3.** The Hancock PTA needs to order 348 participation ribbons for Field Day. These ribbons cost \$2.89 for a package of 20.

How many packages does the PTA need to order? _____

How much will the PTA spend on ribbons? _____

Multiplying and Dividing Large Numbers

(page 1 of 2)



Solve the following problems. Use clear and concise notation in your solutions.

1.
$$\begin{array}{r} 748 \\ \times 64 \\ \hline \end{array}$$

2. $657 \times 93 = \underline{\hspace{2cm}}$

3. $2,401 \times 27 = \underline{\hspace{2cm}}$

4. Write a story problem that represents one of the multiplication problems above.

Multiplying and Dividing Large Numbers

(page 2 of 2)

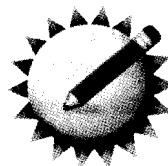


5. $7,899 \div 84 =$ _____

6. $75 \overline{)4,856}$

7. $10,000 \div 68 =$ _____

8. Write a story problem that represents one of the division problems above.



Multiplying and Dividing Large Numbers

NOTE Students solve multiplication and division problems with large numbers and show their solutions.

SMH 30–32, 38–39

1. $1,522 \times 21 =$ _____

2. $8,425 \div 25 =$ _____

3. $2,734 \times 35 =$ _____

Ongoing Review

4. Which division equation is related to $126 \times 18 = 2,268$?

A. $2,268 \div 18 = 126$

C. $126 \div 2,268 = 18$

B. $126 \div 18 = 2,268$

D. $126 \div 6 = 21$



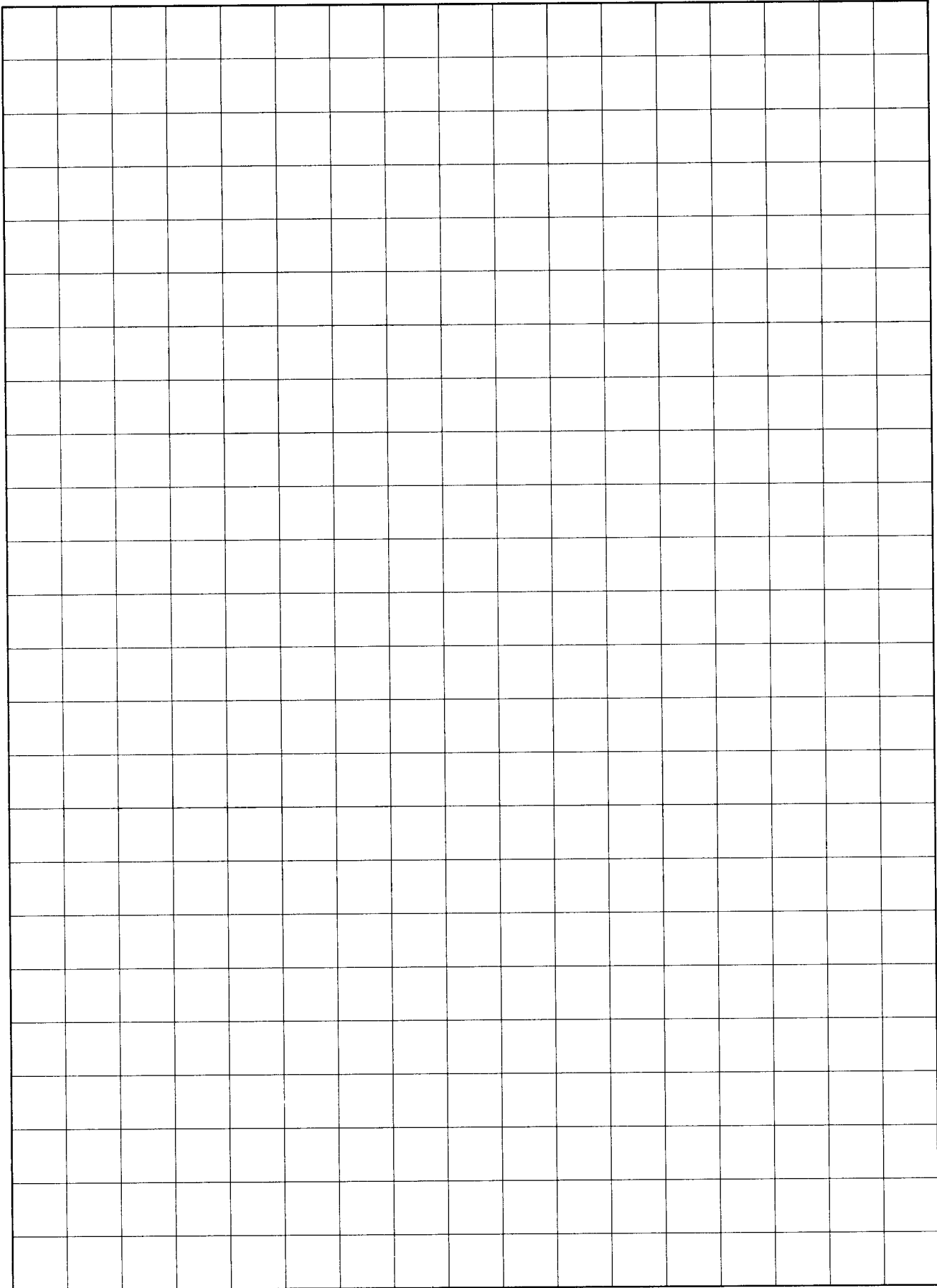
Juice and Oranges

Solve each problem below. Use clear and concise notation to show your solution.

NOTE Students solve related problems in a story context. Students should use an answer they have already found to help them solve the related problem.

SMH 30–32

1. A store orders 75 cases of juice. Each case holds 24 cans of juice. How many cans of juice will be delivered?
2. The next week, the store orders 125 cases of juice. How many cans of juice will be delivered this time?
3. The same store orders 80 cases of oranges. Each case holds 18 oranges. How many oranges will be delivered?
4. The next week, the store orders 150 cases of oranges. How many oranges will be delivered this time?





Multiplication and Division Two Ways

NOTE Students solve multiplication and division problems with large numbers in two different ways.

SMH 30–32, 38–39

Solve the following problems in two ways.
Show each solution clearly.

1. $267 \times 48 =$ _____

First way:

Second way:

2. $7,302 \div 51 =$ _____

First way:

Second way:

Ongoing Review

3. $646 \times 52 =$ _____

A. 305,293

B. 35,921

C. 33,592

D. 5,529



Milk Cartons

Solve each problem below. Use clear and concise notation to show your solution.

One case of milk contains 48 cartons.

NOTE Students solve related problems in a story context. Students should try to use an answer they have already found to help them solve the next problem.

SMH 38–39

1. If there are 960 cartons of milk in the cafeteria, how many cases of milk are there?

2. If there are 1,920 cartons of milk in the cafeteria, how many cases of milk are there?

3. If there are 2,880 cartons of milk in the cafeteria, how many cases of milk are there?



Supersonic Flight

Solve the following problems. Show your work on another sheet of paper.

NOTE Students practice multiplication in the context of a story problem.

SMH 30–32, 38–39

A plane that travels at Mach 1 is traveling at the speed of sound. Mach 2 is twice the speed of sound, Mach 3 is three times the speed of sound, and so on. (The speed of a jumbo passenger jet is less than Mach 1.)

- In the table below, find the missing speeds in miles per hour (mph).
- If a plane travels at Mach 5, how far does it travel per *minute*? _____

Mach Speeds*	
Mach 1	680 mph
Mach 2	1,360 mph
Mach 3	
Mach 4	
Mach 5	

*based on a speed of sound of 680 mph in the stratosphere



The X-43, an unmanned scramjet plane, can reach a speed of nearly Mach 10. An aircraft flying at Mach 10 could travel between Los Angeles, CA and Rome, Italy in under two hours!

- Find the speed in miles per hour of the X-43. _____
 - How far does the X-43 travel per *minute*? _____

