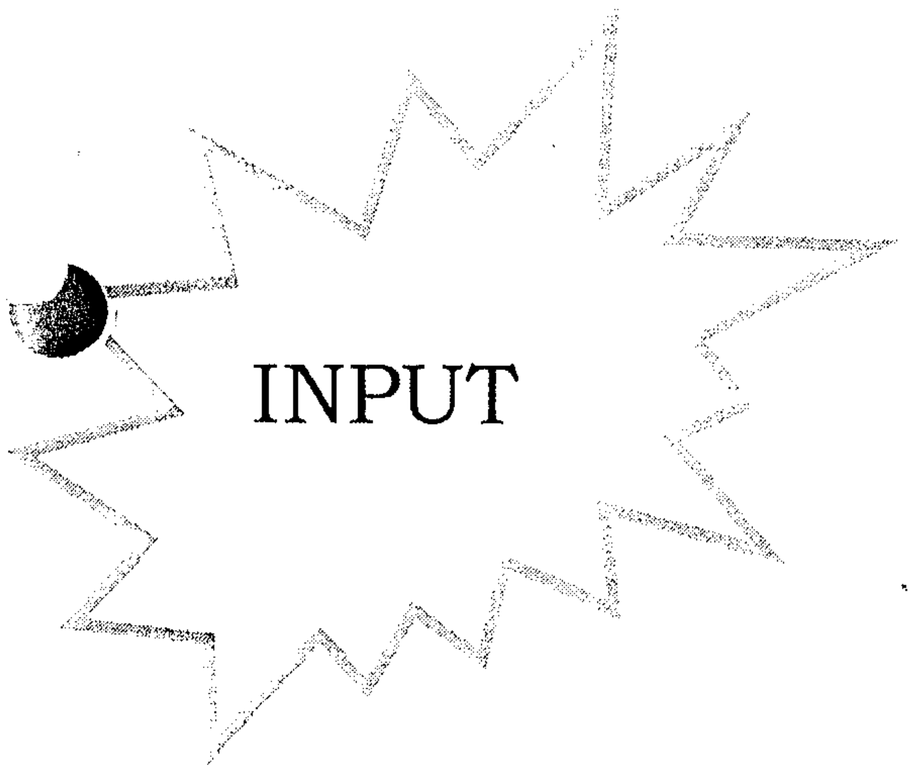
5.4



Multiply by 7

If your answer is even, subtract 53.

If your answer is odd, add 80.

Subtract 55 from the number you

Double your answer

Add 111 to your

INPUT	OUTPUT

NAME

5.4

P86

Multiplying by 2-Digit Numbers

SHARPEN YOUR SKILLS

Complete the cross-number puzzle.

Across

1. 46 × 12

3. 289 × 46

7. 49 × 18

8. 612 × 93

11. 78 × 52

12. 569 × 87

Down

2. 326 × 16

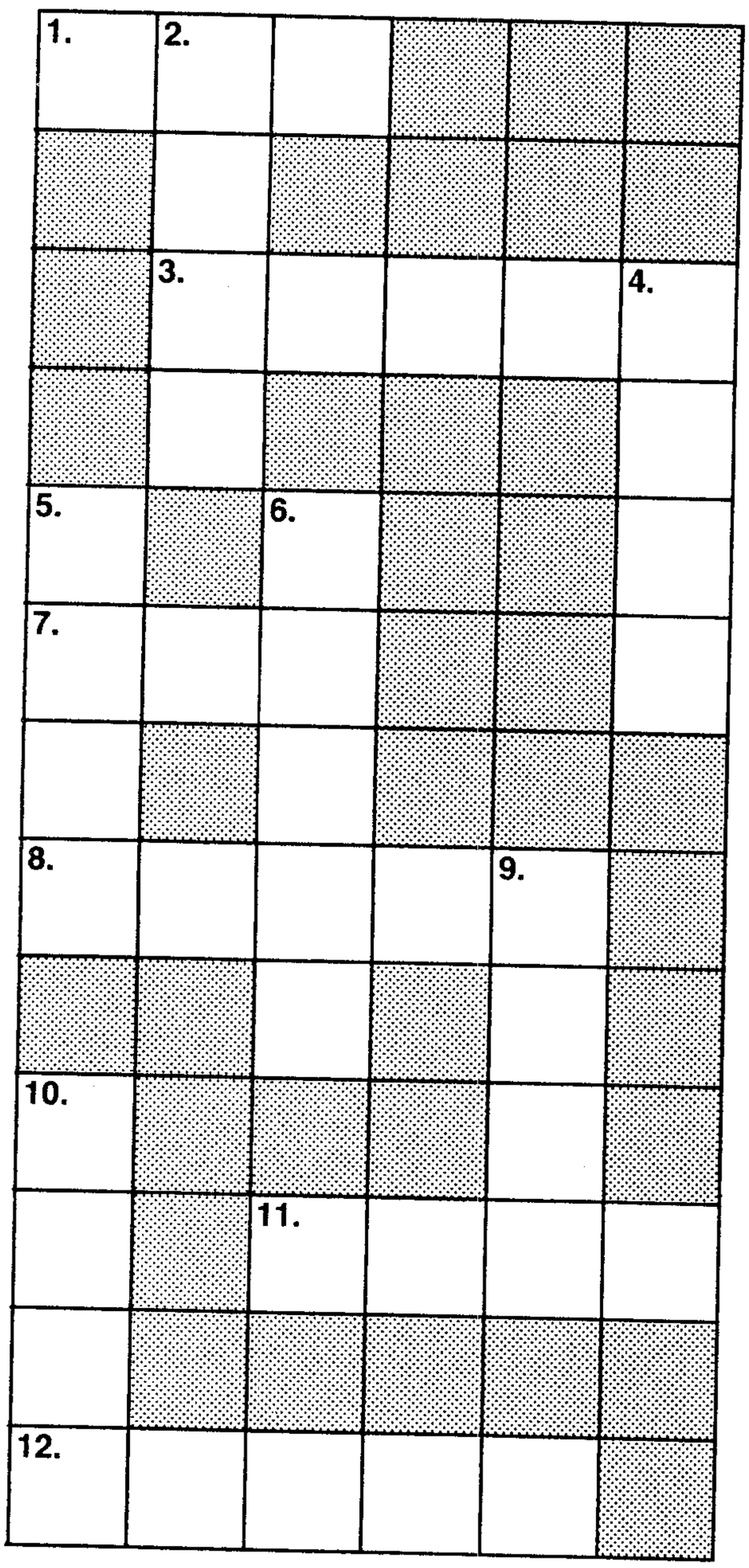
4. 82 × 51

5. 315 × 25

6. 608 × 37

9. 65 × 95

10. 99 × 76



2×1 = 2
2×2 = 4
2×3
2×4

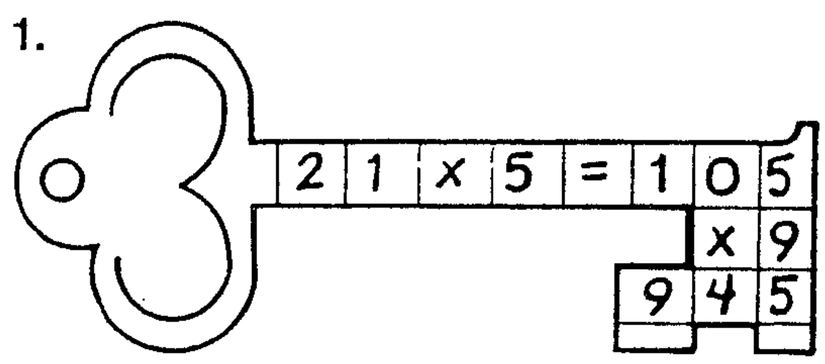
Name _____ **E 63**

Use with text pages 164–165.

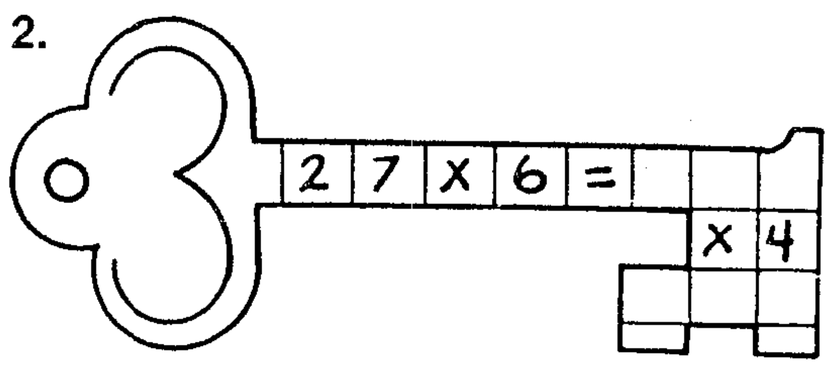
Multiplying Three-Digit Numbers

Multiply to find the "key" numbers. The first one is done for you.

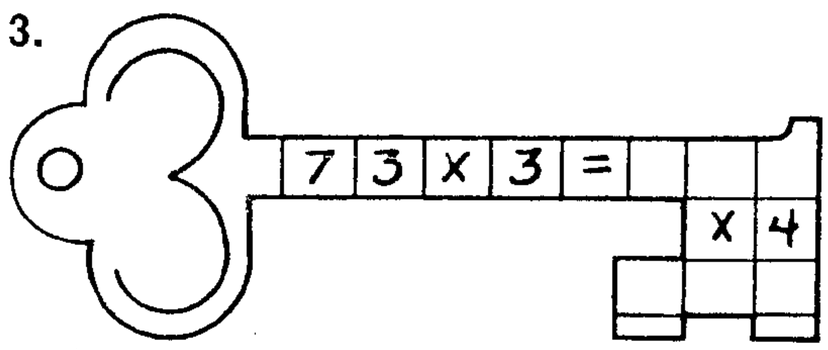
1.



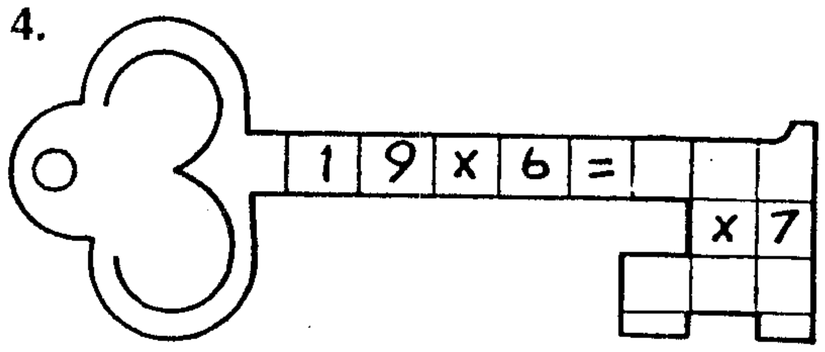
2.



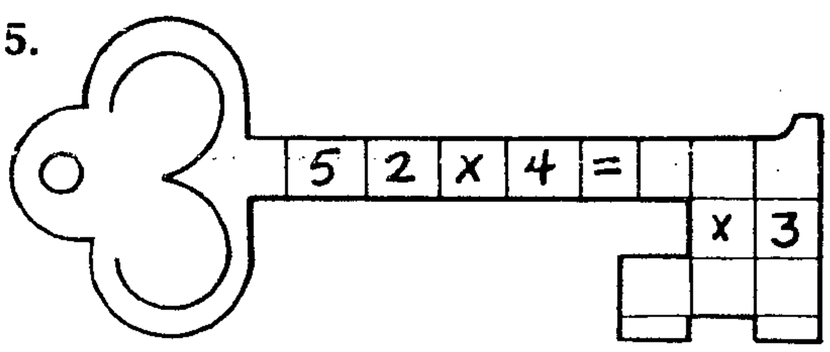
3.



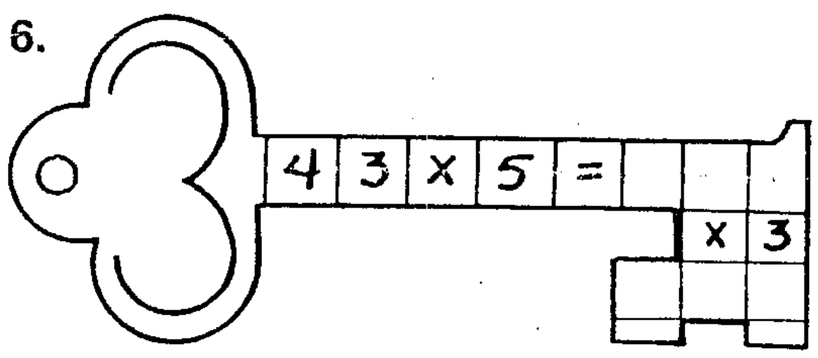
4.



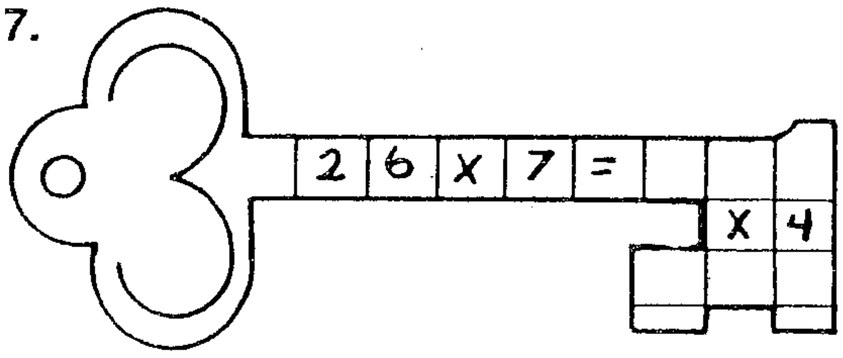
5.



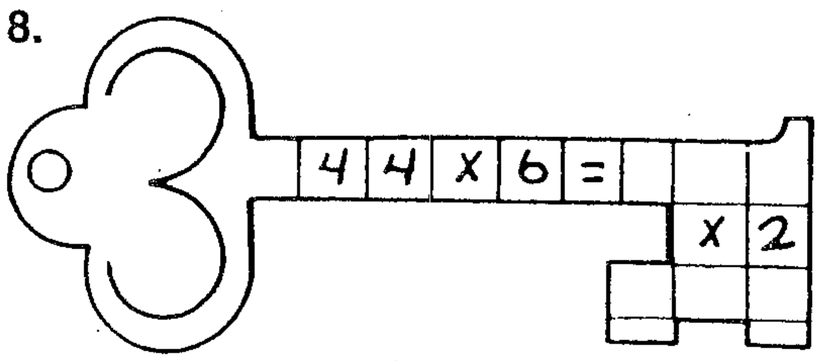
6.



7.



8.



9. Find the secret key. The clues refer to the products you have written.

Clue 1: The sum of the two products is less than 850.
Clue 2: The product of the tens digits is less than 14.
Clue 3: The hundreds digits and the ones digits are multiples of 2.

The secret key is key _____

Super Scientific

5.4

Dividing by 2-digit numbers

Name _____

What did the scientist get when she crossed an oven and a mattress?

To answer the riddle, find the quotients below at the bottom of the page. Put the corresponding letter above each.

K. $13\overline{)6{,}004}$

N. $22\overline{)11{,}198}$

R. $38\overline{)8{,}800}$

F. $17\overline{)2{,}132}$

E. $26\overline{)14{,}014}$

E. $43\overline{)17{,}802}$

A. $11\overline{)3{,}011}$

I. $62\overline{)20{,}708}$

D. $52\overline{)32{,}136}$

S. $44\overline{)39{,}732}$

B. $14\overline{)10{,}064}$

A. $21\overline{)3{,}806}$

B. $33\overline{)9{,}867}$

T. $55\overline{)21{,}326}$

299	231R22	414	181R5	461R11	125R7	273R8	903	387R41
334	509		718R12	539	618			

Name _____

Date _____

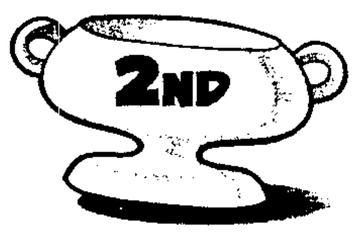
5.4

Tournament Time

Round each factor to the nearest hundred or ten and estimate the product. Then lightly color each box that has the correct estimate to find out which place the team won in the tournament.

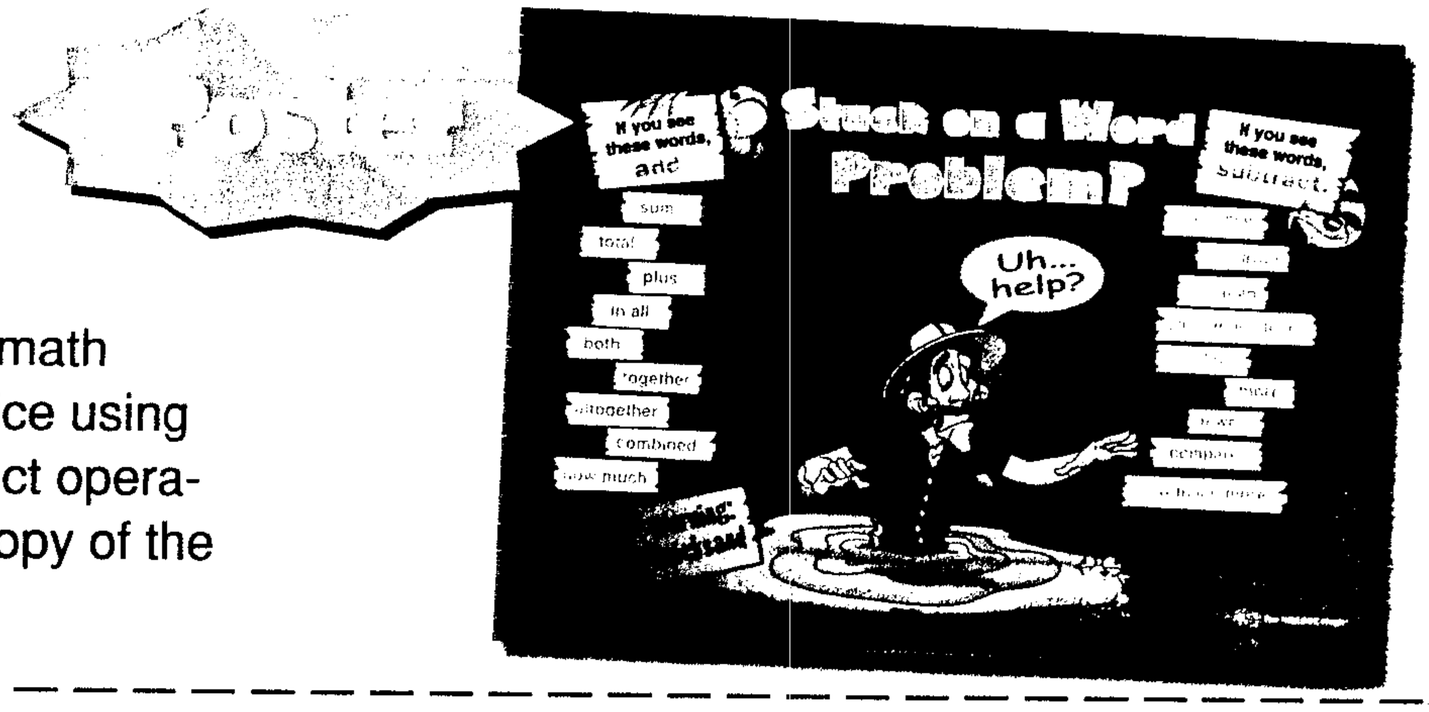
1. 143 x 34 →	100 x 30	3,000	1,300	4,000
2. 158 x 58 →		2,600	12,000	1,200
3. 115 x 15 →		1,000	21,000	2,000
4. 162 x 44 →		10,000	8,000	42,000
5. 189 x 71 →		14,000	27,000	140,000
6. 235 x 65 →		12,000	14,000	1,400
7. 348 x 73 →		37,000	28,000	21,000
8. 454 x 54 →		20,000	25,000	2,000
9. 563 x 47 →		3,000	24,000	30,000
10. 772 x 55 →		86,000	48,000	40,000
11. 226 x 39 →		2,400	8,000	80,000
12. 719 x 85 →		63,000	56,000	6,300

Bonus Box: Solve the problems without rounding. Then compare your answers with your estimates.



Stuck on a Word Problem?

Math word clues



Display the poster and review the math word clues with students. To practice using word clues and choosing the correct operation, have each child complete a copy of the practice page below.

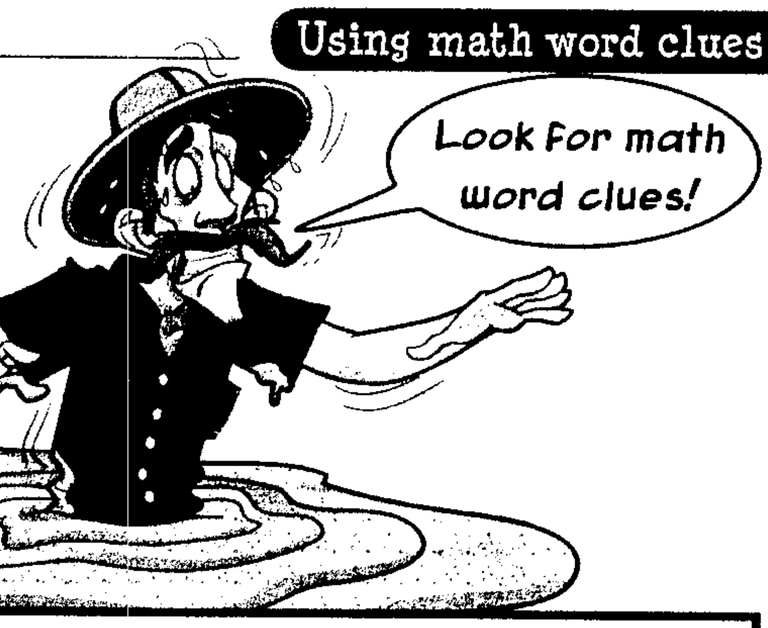
5.4

Name _____

Date _____

Using math word clues

Don't Get Stuck!



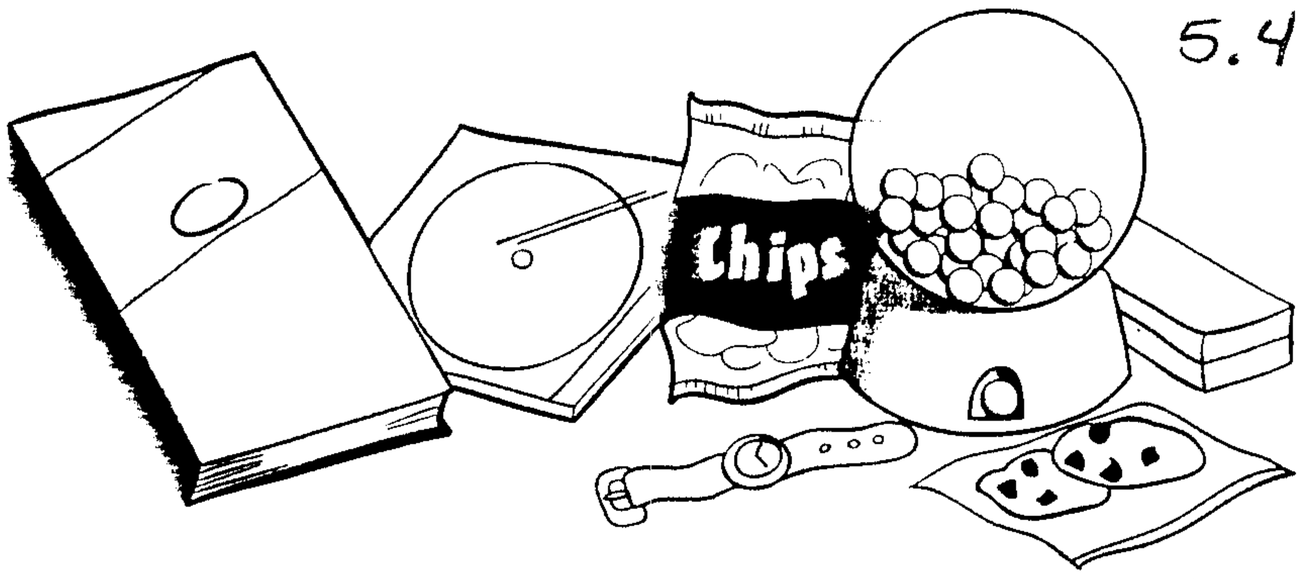
Solve each word problem on another sheet of paper.
Write the answer in the blank below.
Circle the word clues that helped you.

(1) Sam hiked 42 miles last week. This week, he hiked that same distance plus 19 extra miles. How many miles did he hike this week? _____	(2) Sam is attacked by a swarm of 545 mosquitoes. He bats away 327 of them. How many mosquitoes are left? _____
(3) Mac wakes with 67 mosquito bites. Sam wakes with 9 fewer bites than Mac. How many mosquito bites does Sam have? _____	(4) Sam buys insect repellant for $6.95, sunscreen for $4.55, and hiking socks for $8.99. How much do Sam's supplies cost altogether? _____
(5) Sam's backpack weighs 17 pounds less than the backpack of his buddy Mac. If Mac's backpack weighs 40 pounds, how much does Sam's backpack weigh? _____ What is the combined weight of their backpacks? _____	(6) Mac wants to buy film for $7.50, sunglasses for $9.35, and a new hiking stick for $4.50. What is the total cost of the items? _____ He has saved $15.00. How much more money does he need to buy the items? _____

Name _____

5.4

Mall Math



Write an estimate for each answer.

1. The Bookworm Bookstore ordered 32 boxes of children's books. Each box contains 22 books. About how many books will the store receive?

   _____

2. Saturday was a busy day at Movie Lovers Videos. The workers rented 585 DVDs to 200 customers. About how many DVDs did each customer rent?

   _____

3. A shipment of flour to the Cookie Nook weighs 330 pounds. The shipment contains eight large bags. About how much does each bag weigh?

   _____

4. Serena is putting 175 bags of chips, nuts, and cookies on displays at the Snack Shack. If there are six different displays, about how many bags will go on each display?

   _____

5. Each year, Readers Express orders 32 different magazines. If each magazine comes 12 times a year, about how many issues will the store receive?

   _____

6. A wall display at Shoe Scene holds 454 boxes of shoes on nine shelves. About how many boxes are on each shelf?

   _____

7. The Candy Castle has seven gumball machines. Each machine contains 578 gumballs. About how many gumballs are in all the machines?

   _____

8. The owner of Jill's Jewelry Box is placing a special order that will weigh 223 pounds. If shipping costs $0.48 per pound, about how much will it cost to ship the order?

   _____

9. Each month, workers at Totally Toys empty an average of 74 cartons of toys. About how many cartons do they empty in six months? _____

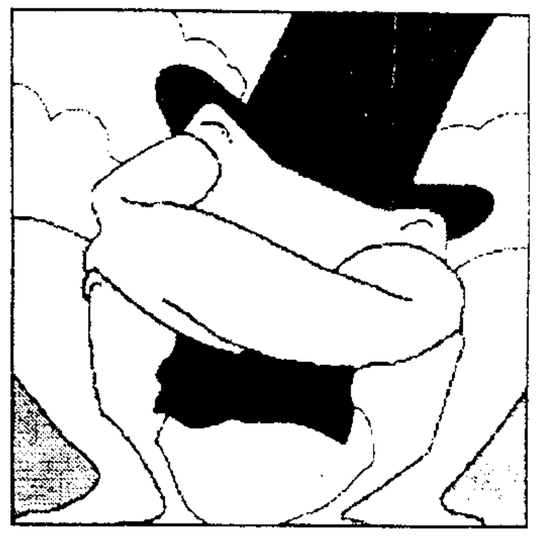
10. Eight clerks at Everything Sports worked a total of 317 hours last week. About how many hours did each person work?

    _____

SOL 3.4

Name_____ **Score**_____

Date_____



Find the quotient.

1) $13\overline{)292}$

2) $36\overline{)108}$

3) $50\overline{)100}$

4) $27\overline{)729}$

5) $50\overline{)200}$

6) $89\overline{)890}$

7) $56\overline{)336}$

8) $45\overline{)900}$

9) $70\overline{)932}$

10) $20\overline{)700}$

11) $51\overline{)233}$

12) $28\overline{)980}$

13) $12\overline{)144}$

14) $85\overline{)850}$

15) $33\overline{)462}$

16) $35\overline{)464}$

17) $17\overline{)895}$

18) $40\overline{)560}$

19) $96\overline{)112}$

20) $58\overline{)198}$

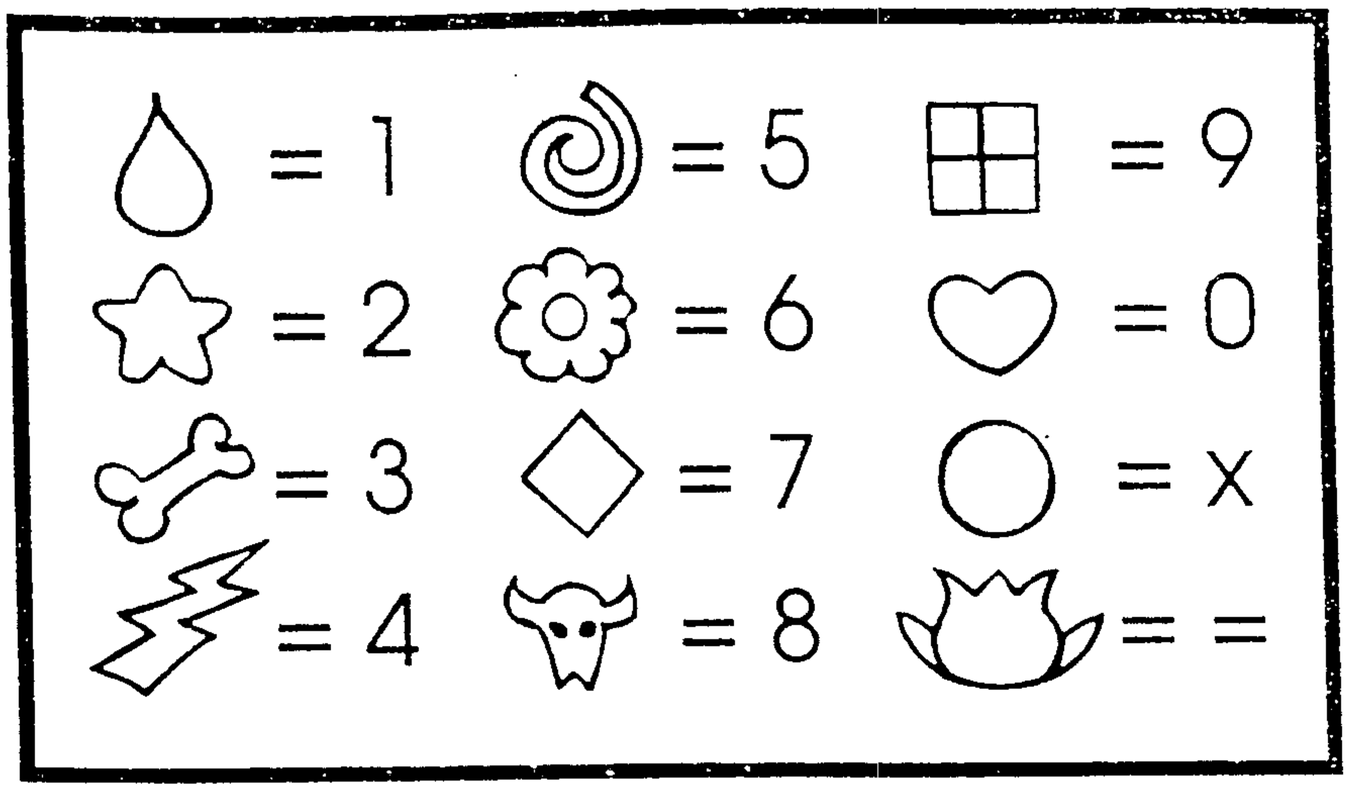
SOL 5.4

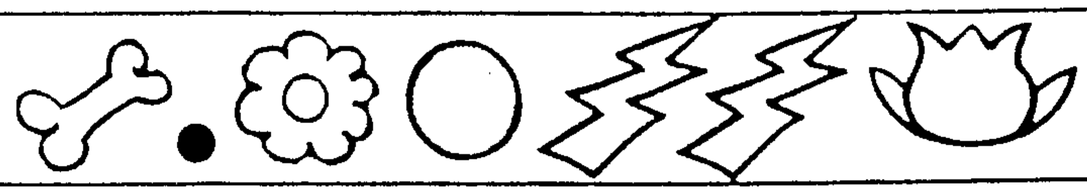
Caveman Cam

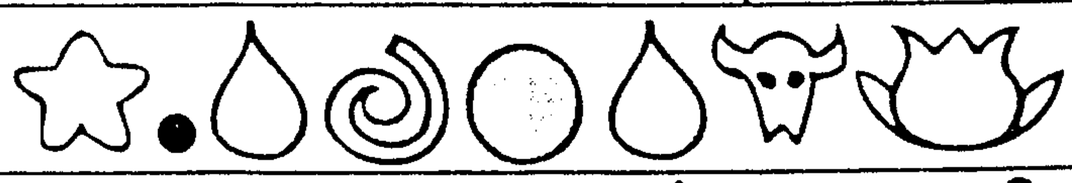
Multiplying decimals by whole numbers

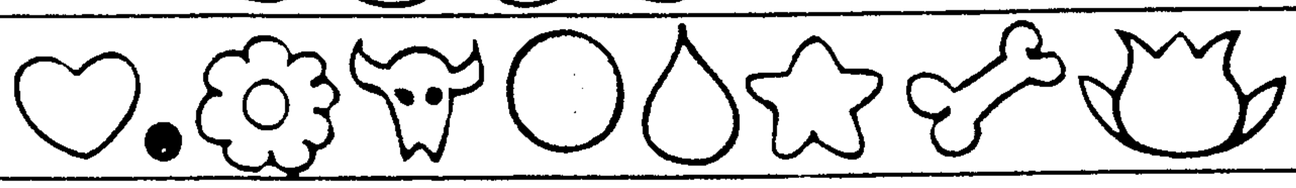
Name _____

Cam, the unfrozen caveman mathematician, left the cave drawings below. Use the box to decipher the multiplication problems.

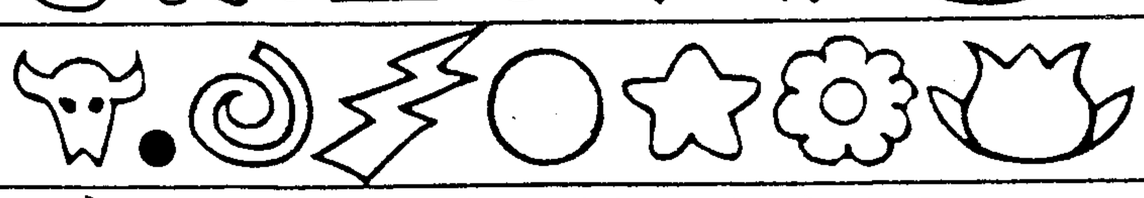


1. 

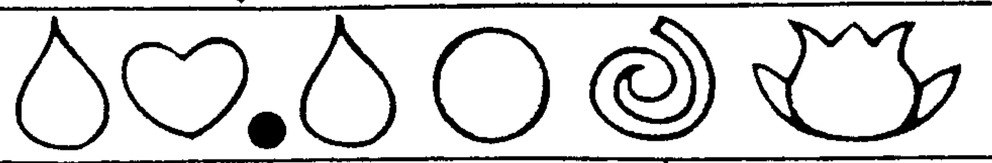
2. 

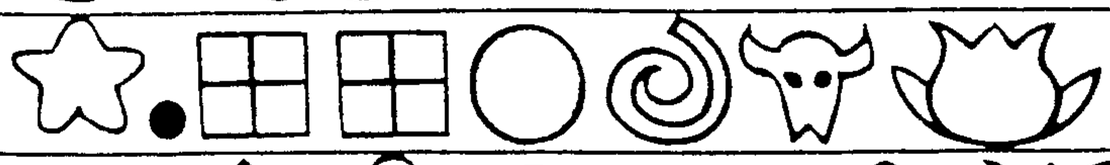
3. 

4. 

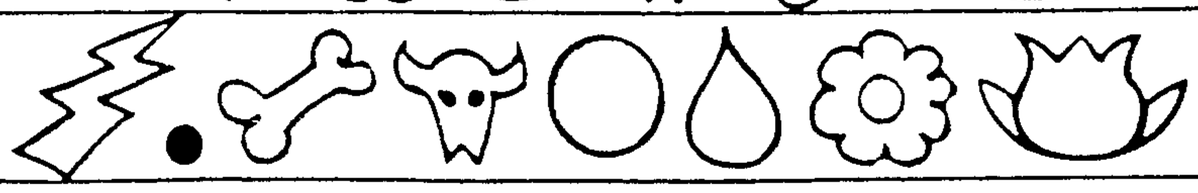
5. 

6. 

7. 

8. 

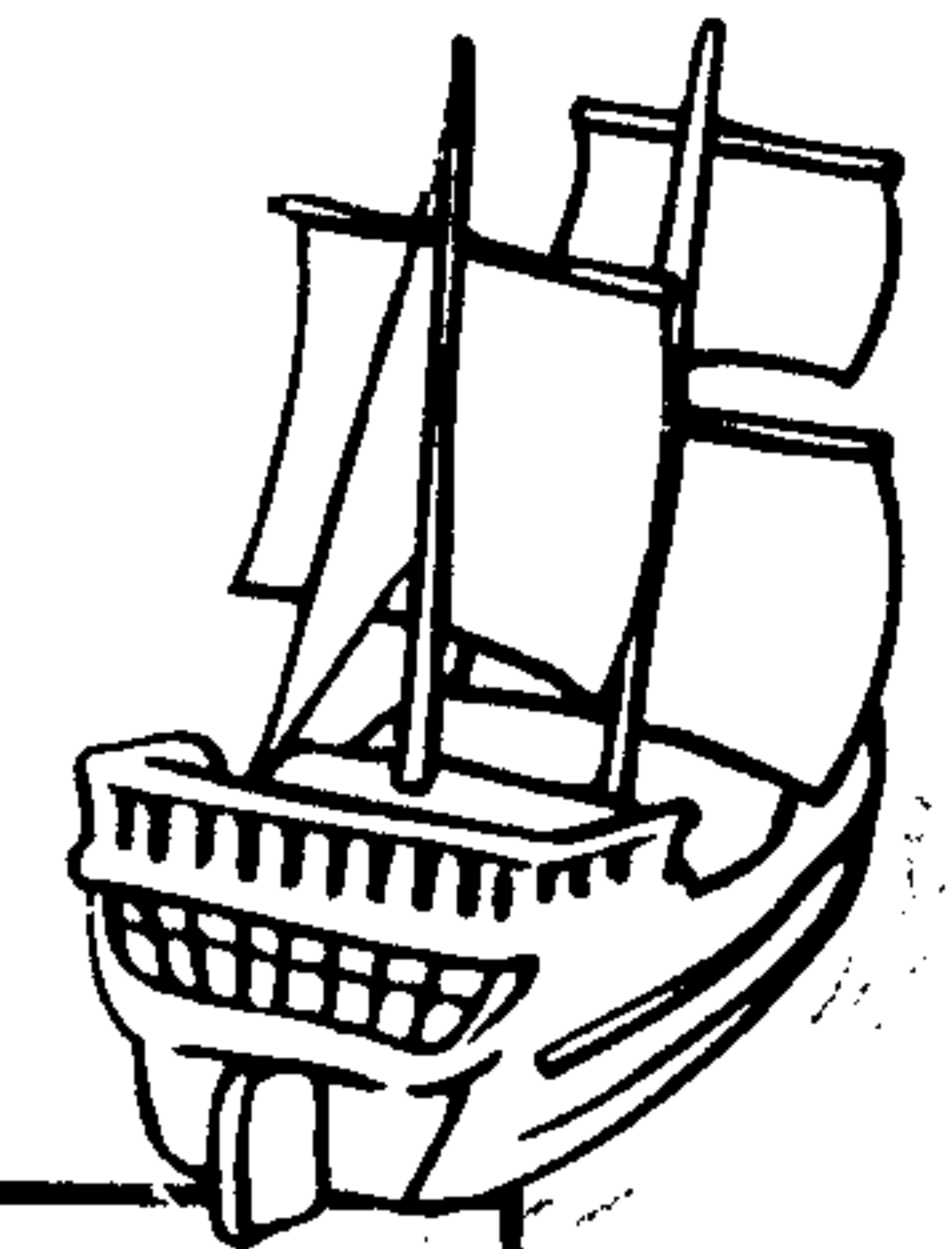
9. 

10. 

5.4

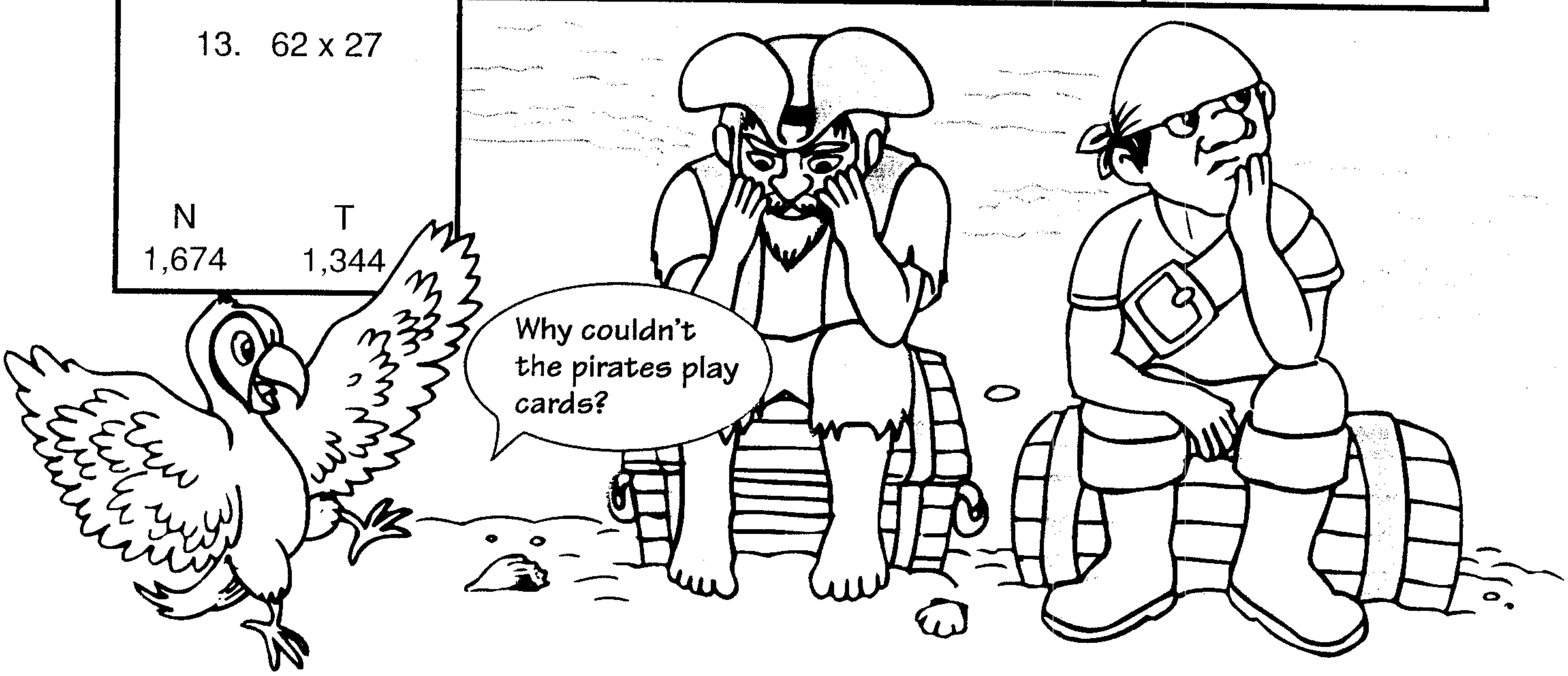
Name _______________ Multiplying by two digits

Pouty Pirates



Solve each problem.
Circle the letter above the correct answer.
Write the circled letters in order in the blanks below to answer the parrot's riddle.

1. 23 x 16 W 368 — C 348	2. 14 x 25 M 250 — A 350	3. 31 x 19 S 589 — C 519	4. 56 x 21 S 1,176 — L 1,102
5. 91 x 33 O 3,183 — T 3,003	6. 74 x 22 A 1,628 — S 1,168	7. 41 x 61 N 2,501 — R 2,216	8. 13 x 70 A 1,110 — D 910
9. 22 x 44 I 968 — T 946	10. 33 x 18 N 594 — B 532	11. 78 x 43 G 3,354 — E 3,312	12. 31 x 55 O 1,705 — R 1,145
13. 62 x 27 N 1,674 — T 1,344			



Because the captain ___ ___ ___   ___ ___ ___ ___ ___ ___ ___ ___   ___ ___ the deck!

NAME_____

5.4

OFESSOR'S RIDDLE:
ong the coast Blackbeard came;
acy was the name of his game.
wels, and treasures he stole;
r this his head was put on a pole.
Near what coast was Blackbeard executed?

ANSWER:

— — — — —

— — — — — — — —

o find out, divide. Draw a path connecting the quotients in order of the problems. The ers along the path spell the answer. Write the letters in the blanks below.

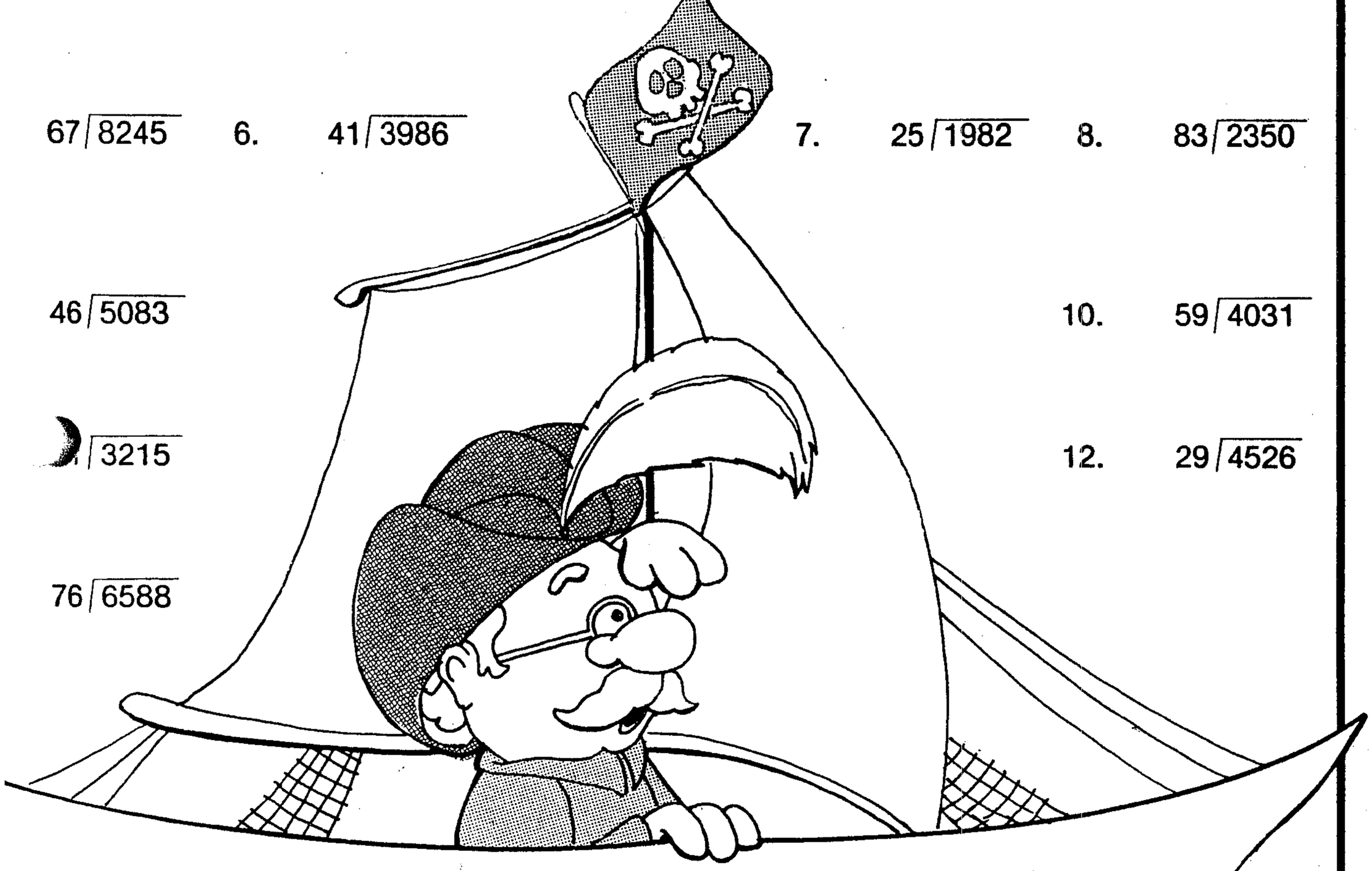
21⟌7643 2. 34⟌8156 3. 44⟌3417 4. 52⟌5816

67⟌8245 6. 41⟌3986 7. 25⟌1982 8. 83⟌2350

46⟌5083 10. 59⟌4031

⟌3215 12. 29⟌4526

76⟌6588



START	363 R20 N	238 R14 I	79 R7 A	28 R26 R
362 R16 S	239 R30 O	77 R29 R	97 R9 C	110 R23 O
246 R5 N	76 R31 U	111 R44 T	123 R4 H	68 R19 L
67 R10 E	101 R64 W	86 R52 A	156 R2 N	52 R43 I

5.4

Name: _____ 3-digits times 1-digit

Multiplication Word Problems

Solve each word problem. Show your work in the right-hand column. Label your answer.

1. A piece of cake has 347 calories in it. How many calories are there in 8 pieces of cake?

   answer: _____

   Show work in this column

2. There is 135 feet of making tape on a roll. Henry has 6 rolls. How many feet of masking tape does he have in all?

   answer: _____

3. A jet plane can travel 567 miles per hour. How many miles could it travel in 4 hours?

   answer: _____

4. An adult panda can eat 138 pounds of bamboo each day. How many pounds of bamboo can a panda eat in a week?

   answer: _____

Name: _____ 3-digits times 1-digit

Multiplication Word Problems – ANSWER KEY

Solve each word problem. Show your work in the right-hand column. Label your answer.

1. A piece of cake has 347 calories in it. How many calories are there in 8 pieces of cake?

   answer: 2,776 calories

2. There is 135 feet of making tape on a roll. Henry has 6 rolls. How many feet of masking tape does he have in all?

   answer: 810 feet of masking tape

3. A jet plane can travel 567 miles per hour. How many miles could it travel in 4 hours?

   answer: 2,268 miles

4. An adult panda can eat 138 pounds of bamboo each day. How many pounds of bamboo can a panda eat in a week?

   answer: 966 pounds of bamboo

Show work in this column

NAME

SHARPEN YOUR SKILLS

Estimation

What three letters make you old?

To find out, round to estimate each product. Each time an answer is given in a box below, cross out that box. Then write the remaining letters in order on the blanks below. Some answers are not used.

1. 33 × 47 — 1,500

2. 52 × 75 — _____

3. 49 × 68 — _____

4. 73 × 14 — _____

5. 61 × 16 — _____

6. 105 × 91 — _____

7. 79 × 84 — _____

8. 132 × 51 — _____

9. 28 × 72 — _____

10. 59 × 31 — _____

11. 122 × 57 — _____

12. 68 × 43 — _____

13. 116 × 33 — _____

14. 77 × 18 — _____

15. 222 × 34 — _____

16. 39 × 81 — _____

1,500	5,000	3,000	6,400	2,800	2,100	1,600	1,800
~~A~~	P	S	R	U	A	T	M	O	G	N	I	J	E	B
	3,200	3,500	1,400	9,000	250	700	3,600							

_____ _____ _____

5.4

Solve each problem.

1.

$^{2}87$	58	45	90
x 41	x 27	x 16	x 23
87			
+ 3480			
3,567			

2.

71	85	17	37
x 22	x 86	x 53	x 97

3.

26	34	65	18
x 49	x 76	x 25	x 24

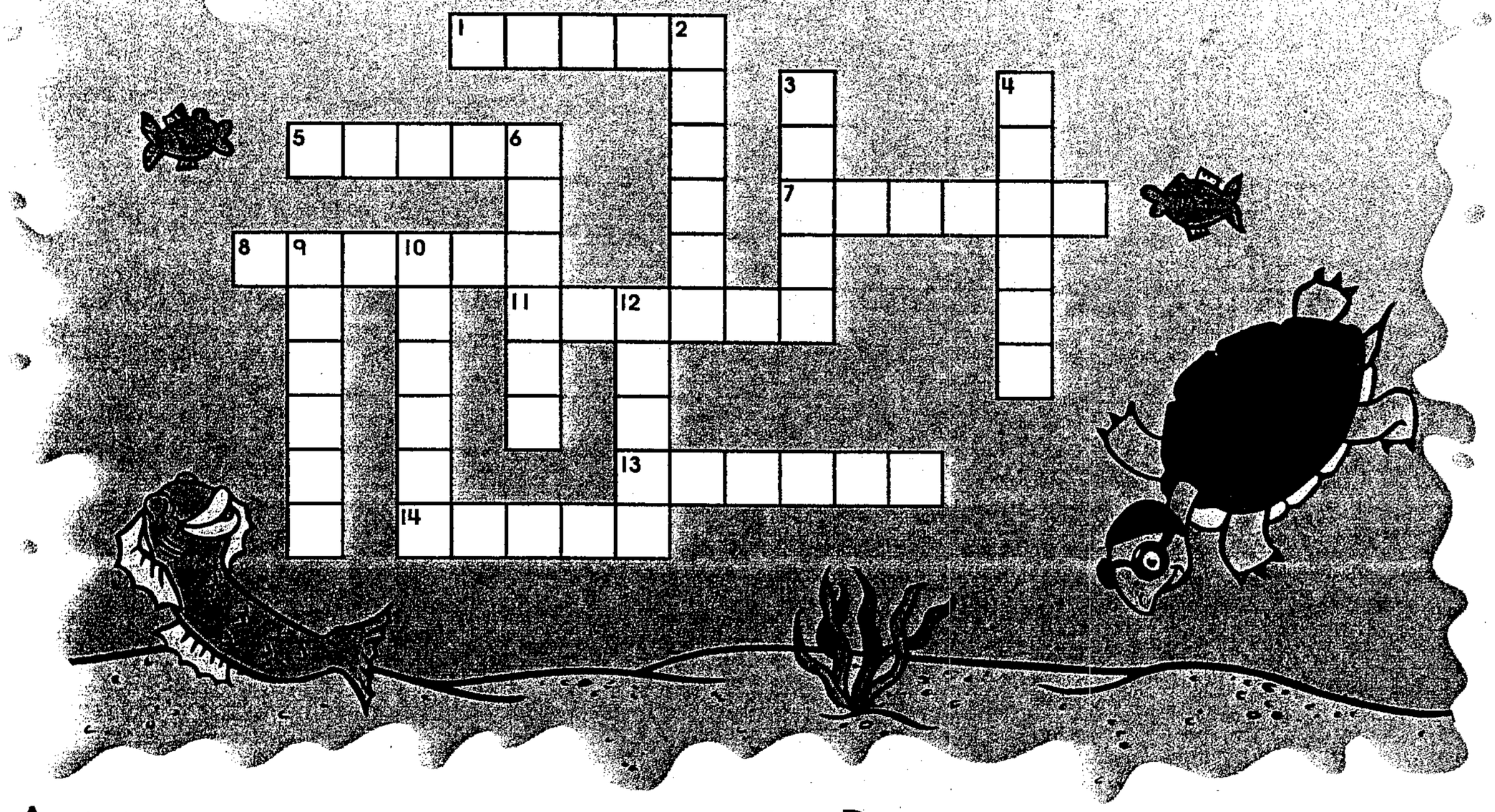
4.

72	43	92	65
x 64	x 39	x 72	x 12

Name _____

Puzzling Cross Number

Directions: Solve the multiplication problems below. Write the answers in the puzzle.



Across

1. 462 x 212

5. 234 x 101

7. 926 x 815

8. 624 x 783

11. 832 x 458

13. 336 x 817

14. 801 x 101

Down

2. 634 x 755

3. 208 x 422

4. 672 x 833

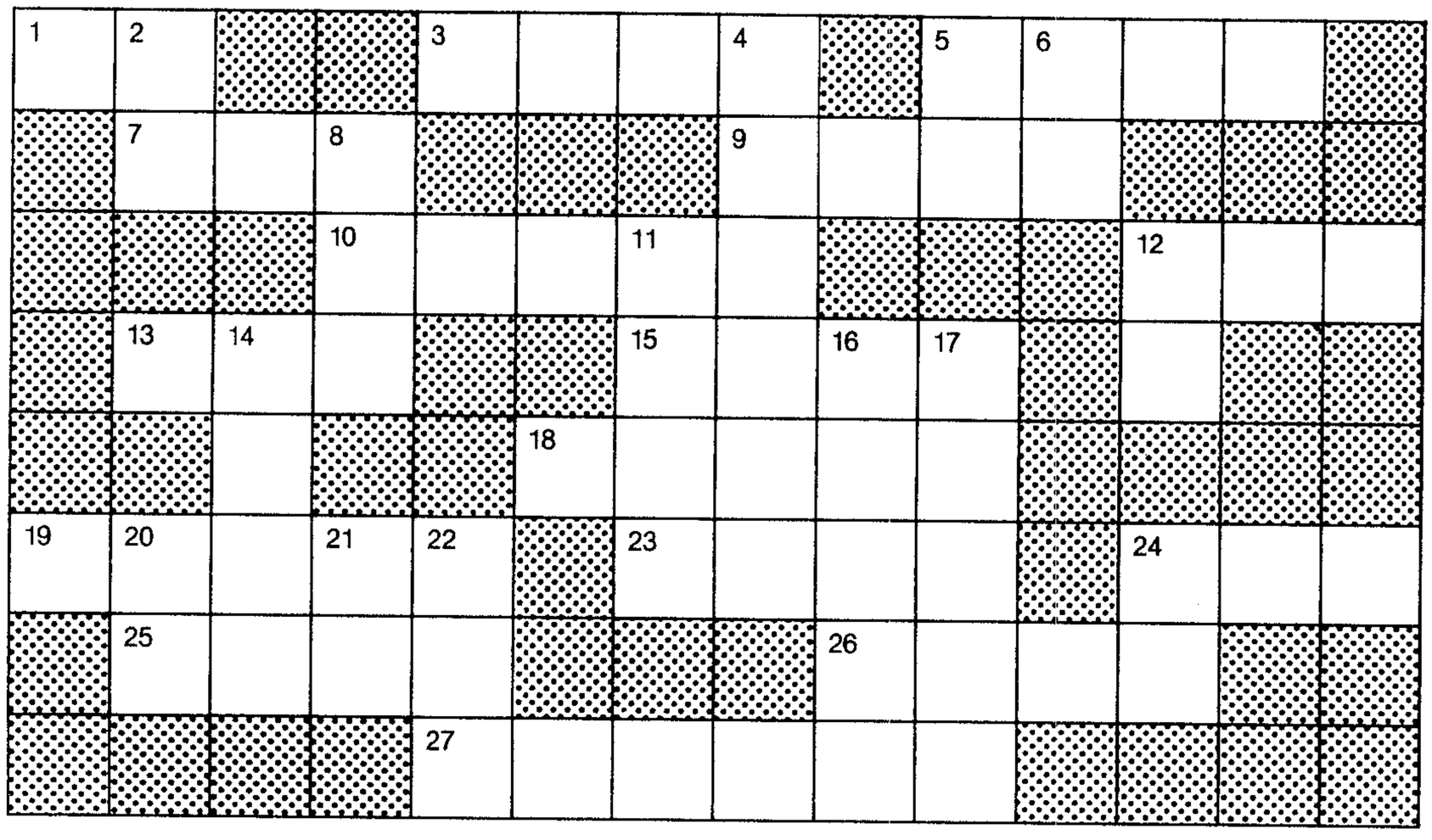
6. 547 x 900

9. 926 x 950

10. 698 x 741

12. 111 x 111

Multiplication Crossnumber



ACROSS

1. $14 \times 4 =$
3. $623 \times 3 =$
5. $47 \times 73 =$
7. $29 \times 18 =$
9. $91 \times 17 =$
10. $1{,}688 \times 6 =$
12. $54 \times 2 =$
13. $36 \times 20 =$
15. $89 \times 61 =$
18. $180 \times 83 =$
19. $179 \times 62 =$
23. $94 \times 30 =$
24. $217 \times 3 =$
25. $77 \times 26 =$
26. $294 \times 6 =$
27. $9{,}400 \times 30 =$

DOWN

2. $13 \times 5 =$
4. $153{,}083 \times 6 =$
5. $17 \times 2 =$
6. $47 \times 1 =$
8. $21 \times 10 =$
11. $1{,}271 \times 2 =$
12. $2 \times 6 =$
14. $29 \times 100 =$
16. $269 \times 90 =$
17. $18{,}014 \times 5 =$
20. $3 \times 4 =$
21. $45 \times 2 =$
22. $137 \times 6 =$
24. $8 \times 8 =$

SHARPEN YOUR SKILLS

...viding 3-Digit Numbers by 1-Digit Numbers

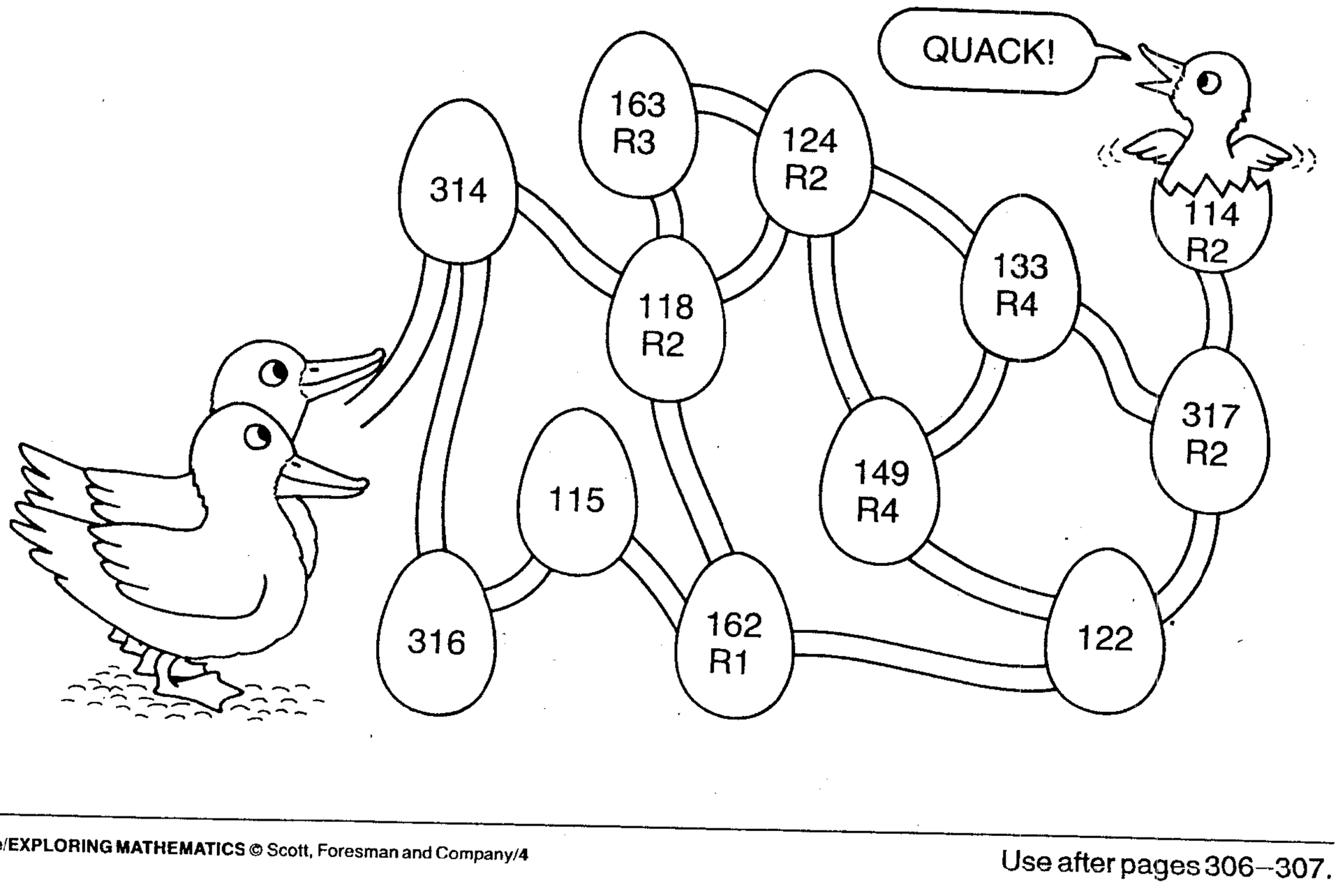
Divide.

1. $2\overline{)628}$ **2.** $3\overline{)948}$ **3.** $5\overline{)575}$ **4.** $4\overline{)649}$

5. $8\overline{)946}$ **6.** $4\overline{)655}$ **7.** $7\overline{)870}$ **8.** $5\overline{)669}$

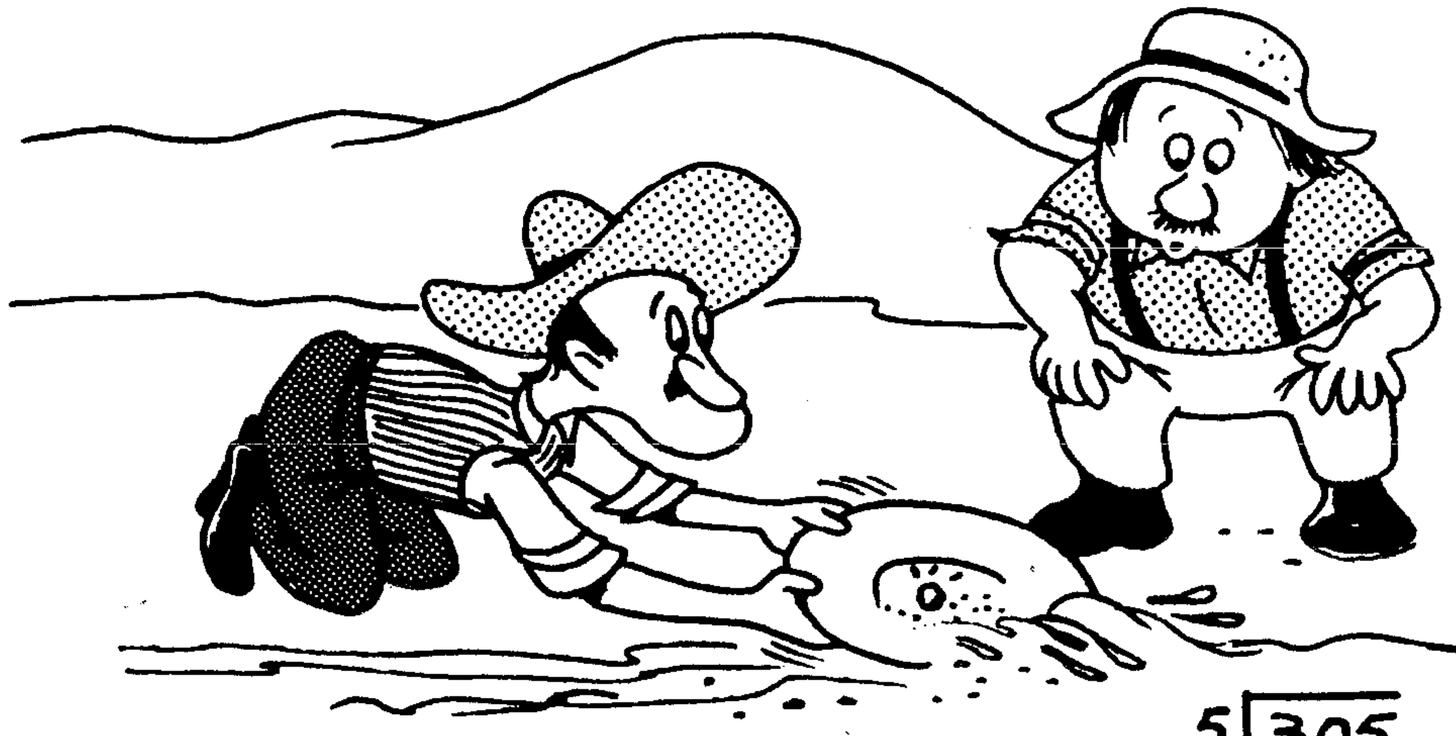
9. $5\overline{)749}$ **10.** $8\overline{)976}$ **11.** $3\overline{)953}$ **12.** $7\overline{)800}$

Trace a path through answers 1–12 to help the ducks find their baby.



Name _____

THE SHINY NUGGET



These prospectors are panning for gold in California. Suddenly one man discovers a shiny nugget. Follow the path to his treasure sack. Solve all the problems below.

$7\overline{)616}$ $6\overline{)288}$ $5\overline{)305}$ $4\overline{)312}$ $6\overline{)198}$ $4\overline{)140}$ $5\overline{)385}$ $9\overline{)378}$ $6\overline{)324}$ $8\overline{)280}$ $4\overline{)256}$ $5\overline{)345}$ $3\overline{)225}$

Math Marvel's Math Design

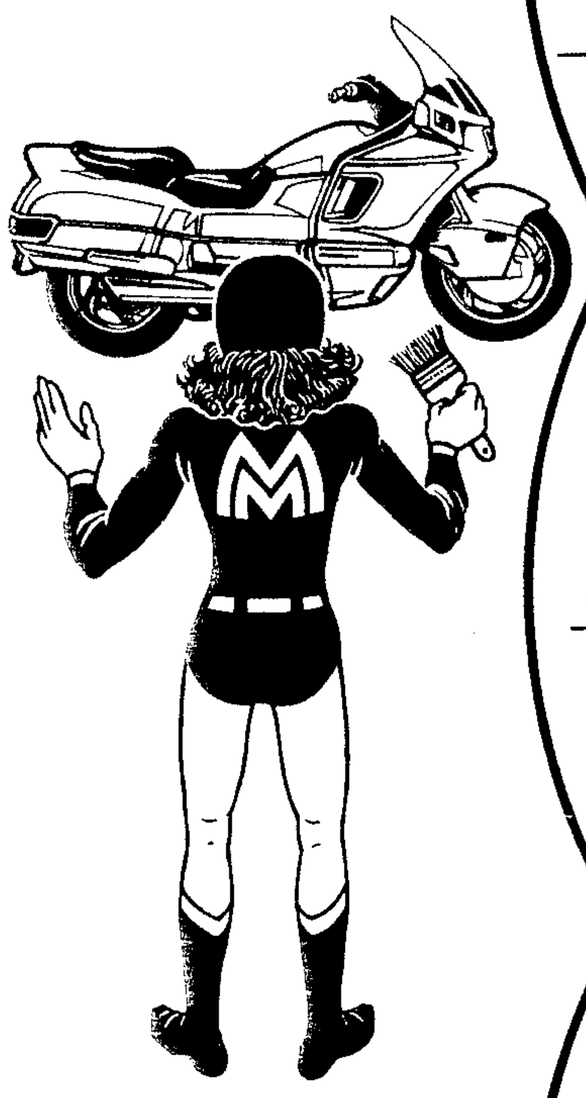
Math Marvel sketched a design for her motorcycle. Help her choose the colors by working each problem on the calculator and coloring the design.

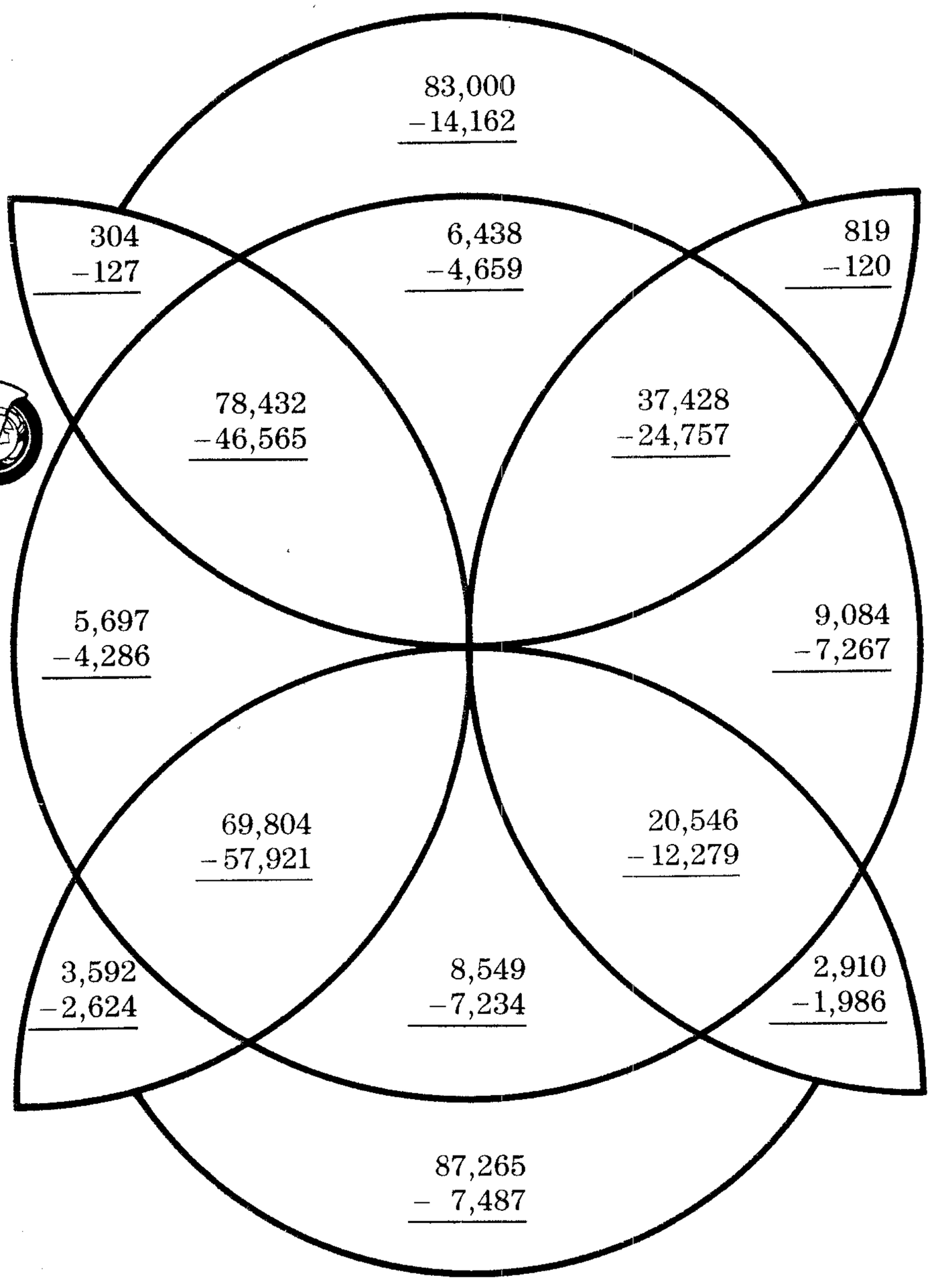
If the answer is less than 1,000, color the space yellow.

If the answer is greater than 1,000 and less than 5,000, color the space purple.

If the answer is greater than 5,000 and less than 50,000, color the space orange.

If the answer is greater than 50,000, color the space blue.





Add, Subtract, Multiply, and Divide Numbers

Estimate the answer and then use the calculator to find the exact answer.

I. Add

	Estimate	Answer		Estimate	Answer
1. 5 + 22 =	_____	_____	5. 453 + 654 =	_____	_____
2. 12 + 15 =	_____	_____	6. 138 + 2,513 =	_____	_____
3. 71 + 35 =	_____	_____	7. 867 + 908 =	_____	_____
4. 123 + 231 =	_____	_____	8. 9,141 + 914 =	_____	_____

II. Subtract

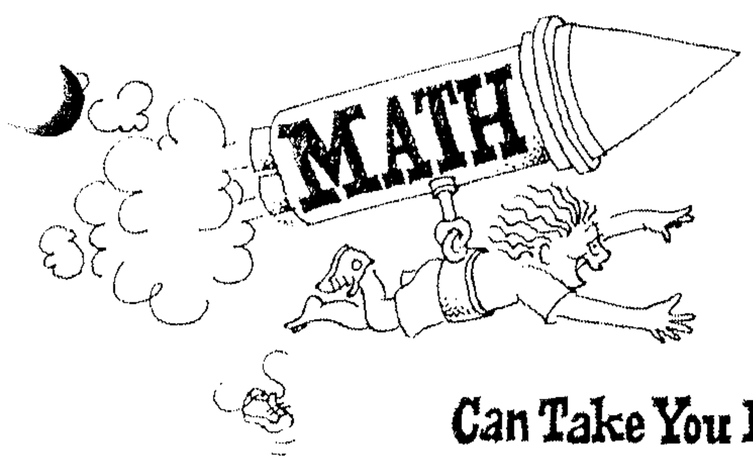
1. 173 – 167 =	_____	_____	5. 831 – 113 =	_____	_____
2. 112 – 15 =	_____	_____	6. 4,467 – 3,567 =	_____	_____
3. 121 – 34 =	_____	_____	7. 3,424 – 256 =	_____	_____
4. 435 – 71 =	_____	_____	8. 35 – 21 =	_____	_____

III. Multiply

1. 15 × 12 =	_____	_____	5. 290 × 113 =	_____	_____
2. 71 × 35 =	_____	_____	6. 124 × 345 =	_____	_____
3. 14 × 245 =	_____	_____	7. 3,711 × 7,211 =	_____	_____
4. 121 × 34 =	_____	_____	8. 5,631 × 4,256 =	_____	_____

IV. Divide

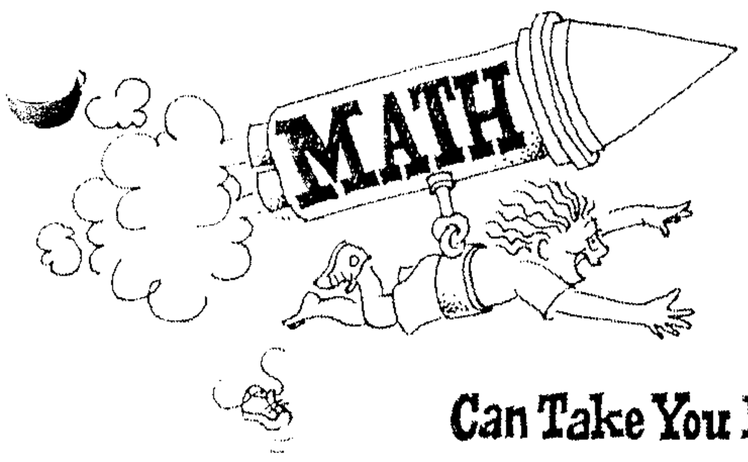
1. 26 ÷ 15 =	_____	_____	5. 45 ÷ 6 =	_____	_____
2. 633 ÷ 211 =	_____	_____	6. 32 ÷ 17 =	_____	_____
3. 741 ÷ 13 =	_____	_____	7. 34 ÷ 3 =	_____	_____
4. 12 ÷ 15 =	_____	_____	8. 1,358 ÷ 231 =	_____	_____



Can Take You Places

Activity Cue Card

- Give each pair a set of Estimation Math Libs.
- Each pair will read a Math Lib to each other and fill in the blanks.
- Then, they work out the silly word problem.
- Repeat the process with another of the word problems if time permits.



FOCUS AREA
Range

ACTIVITY TYPE
Tabletop Game

Math Goal
To create and solve word problems

RECOMMENDED NUMBER OF STUDENTS
Students work in groups of two. This activity can accommodate up to 30 children.

TIME NEEDED
20-30 minutes

Estimation Math Libs

3rd - 4th Grade

OBJECTIVE

To create silly word problems, and then use estimation skills to help solve them.

MATERIALS

- Estimation Math Libs sheets (and answer key) - one for each student
- Pencil and paper for each pair

BEFORE YOU START

- Be sure to make enough copies of the Estimation Math Libs sheet for each child to have one. There are six different Math Libs to chose from.
- You may need to remind students that an adjective describes a person, place or thing

HOW TO START

Tell the children that they are going to write their own silly math stories today. Work the following example with the children:

Before reading the word problem, ask someone to name a color.
Then say, "Now name an animal."
Finally say, "I need a number."

When all of the blanks are filled, read the entire word problem to the children.

A _____ _____ has
(1. any color) (2. any animal)

_____ legs. How many legs would
(3. any number)

two _____ have?
(same as #2)

Work with them to find the answer. Tell them that they will be doing similar problems with a partner.

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A KERA educational project funded by Travelocity

STEPS

Step 1

Each player chooses one of the Estimation Math Libs and does not show it to the other player.

Step 2

Player 1 starts by asking Player 2 the questions in parentheses on the Math Lib and writes the responses in the blanks.

Step 3

Player 2 then asks Player 1 the questions in parentheses on the Math Lib he/she chose and writes the responses in the blanks.

Step 4

When both Math Libs are done, players read them aloud to each other. Then both players work the word problems they have created.

Step 5

Players each choose another Math Lib and start the process again. When all the Math Libs have been worked, players use the answer sheet to check their work.

WRAP UP

Allow children to share some of the sillier problems that they developed.

OPTIONAL ACTIVITIES

- The kids can work in pairs or individually to write their own Math Libs problems and exchange them with class members.
- Language Arts: Share Ad-Libs with students. http://www.sundhagen.com/babbooks/adlib.cgi
- At home: Allow the children to write new Estimation Math Libs and try them out on other family members.

WEB RESOURCES

- Estimation Page: http://www.321know.com/est.htm
- Estimation Brain Teasers: http://www.toonuniversity.com/quiz.asp?quizzes_key=1
- Ad-libs: http://www.sundhagen.com/babbooks/adlib.cgi

SUGGESTED *MATH CAN TAKE YOU PLACES* CONNECTIONS

From *Math Can Take You Places After-School Kit*

- Reasonableness activities: Pop It, Now Stop It and Weigh Too Much
- Equivalency activity: Riddle Me This

From the Math Can Take You Places Classroom CD activities, Estimation Math Libs

5.4

Division Match

Work:

[ ] With a Group

[✓] With a Partner

[ ] On Your Own

What You'll Need:

- 24 index cards

Getting Started

Write and solve six multiplication problems. One factor can be any 3-digit number with a 0 in it. The other factor can be any 1-digit number. Your partner does the same.

Rewrite each multiplication problem as a division problem. On one index card, write the product and the 1-digit factor. On another index card, write the 3-digit quotient.

304
× 2
608

304

2⟌608

Here's How

1. Mix all the index cards. Place them facedown in four rows with six cards in each row.
2. Begin play by turning over any two cards.
3. If the numbers on the two cards show a division problem and its correct quotient, keep the cards and take another turn.
4. If the cards do not match, return them to their facedown position. Then it's your partner's turn.
5. The game is over when all the cards have been matched.

Try This!

With your partner, talk about the strategy or strategies you used to play the game.

A Problem-Solving Party

A Festive Review Of Math Problem-Solving Skills And Strategies

What is undoubtedly the single most important skill for survival in today's—and tomorrow's—ever-changing world? Most would agree that learning effective skills and strategies for problem solving is the key. Help students plan a math problem-solving party by including the following creative activities in your year-end teaching plans.

by Irving P. Crump

On this page and page 37, you'll find easy-to-do activities to help your students review and practice using problem-solving strategies. Page 38 includes an outline of activities in which small groups of students use their problem-solving skills to plan an end-of-the-year class party. Provide more fun problem-solving practice with the creative reproducibles on pages 39–41.

Plan To Solve

First review the steps shown in the box below for approaching and solving a problem. Make a chart or a transparency of these steps to share with your students. Then discuss with them the following additional information:

Step 1: Although the chart states "read the problem," don't stop after just one reading! Read the problem a second time more slowly, and then a third time if necessary. Reword the problem's question so that you truly understand it and know exactly what you're looking for.

Step 2: The facts needed to solve a problem are usually numbers: prices, measurements, quantities, etc. Sometimes there's not enough information included with a problem to solve it. And often a problem includes information that is unnecessary or irrelevant.

Step 3: Make an arithmetic plan. Simply say in words—then write as a math sentence—exactly what you intend to do to solve the problem.

Step 4: Carry out the plan by performing the necessary computation to arrive at the solution.

Step 5: Check the answer. Does it make sense? If possible perform the math in a different way.

Problem-Solving Steps

1. Read the problem.
2. Find the facts that are needed.
3. Make a plan.
4. Carry out the plan.
5. Check the answer.

Tools For Solving

Next remind students that the strategies they've already learned are tools to help them solve problems. They should remember that any one or a combination of these strategies can be used. Copy the list below on a chart or make a transparency to share with your students.

a. Make a table, chart, or graph.
b. Make an organized list.
c. Guess and check.
d. Look for a pattern.
e. Draw a picture or diagram.
f. Act out the problem.
g. Work backward.
h. Work a simpler problem.
i. Use logical reasoning and deduction.
j. Brainstorm ideas.

5.4

Divisibility War

by Diane Reed

Diane taught junior high math for three years and Algebra II and Pre Calculus topics for the past two Summers. She will have her MA. in Educational Technology from SDSU Spring 1995. For fun, she skis, works out and sails.

Instructional Objective The learners shall be able to use the divisibility tests to state that a number is divisible by 2, 3,4,5,6,9, and/or 10.

Learners/Context This game is designed for secondary level students studying basic mathematics. Use this card game with students who have been introduced to the divisibility tests for 2, 3,4,5,6,9, and 10.

Rationale Skill in using the divisibility tests makes it possible to recognize that a number can be evenly (no remainder) divided by 2,3,4,5,6,9, and 10, without performing long or short division. Once mastered, the divisibility tests can ease the math mind work involved in long and short division, fractions, percents and consumer skills, etc..

Transfer of this unobservable skill is dependent on the learner having sufficient practice applying the rules with plenty of feedback in circumstances similar to those that make using the divisibility rules useful. Teachers usually introduce students to the divisibility tests, then orally drill the class, assign a worksheet for individual practice and follow up with an oral class test for understanding. Transfer of this skill is promoted by prompting students to use the test at appropriate times in subsequent lessons. This is a haphazard approach that dooms all but the brighter students from learning and applying this skill. Use of worksheets does not provide enough practice or immediate individual feedback. Many students will complete the worksheet by doing the necessary division instead of using the divisibility tests to complete the worksheets; thus defeating the individual practice purpose of the worksheets. Without immediate individual feedback a student may never realize that he is not applying the rules or is applying them incorrectly. In subsequent lessons it is easier for students to use their division skills to learn the new lesson rather than apply the divisibility tests- a skill they have not mastered. Divisibility War could augment, shorten or replace the practice worksheets. This game will provide students practice applying the divisibility tests on large numbers. Divisibility War can fill in gaps in class time and is designed to provide immediate feedback to students as they practice using the divisibility rules. Thus, this game will ensure that students get plenty of practice and feedback using the divisibility rules in circumstances that are similar to those that make the divisibility tests useful; thus promoting transfer for all students.

Rules The game is played with 2-6 players in the following manner:

1. The dealer Shuffles the deck of cards.

2. The dealer deals the pack equally and face down: setting any extra cards aside.

3. Each player stacks his cards into a pile face down in front of him.

4. The player to the left of the dealer takes his turn first.

5. During a player's turn, he should:

(a) place the top card of his stack face up for all to see,

(b) make a statement of divisibility (state that the number on the card he has placed is evenly divisible by 2,3,4,5,6,8,9 and/or 10 or one or none of these numbers), and

(c) place zero to eight count chips, depending on the number of divisibility tests that hold for the number on the card, beside the placed card. **For example**, if a player states that the number on his card is divisible by 2, 4 ,5 and 10 he should place four count chips beside his card because 4 divisibility tests (2,4,5, and 10)hold for the number on the card.

6. The player to the left of a player takes his turn next.

7. The next player may challenge a player's statement of divisibility after the player places his count chips and before the next player's turn begins. A challenge entails the following:

(a) A challenger must make a statement of divisibility. A challenger may not repeat the player's statement of divisibility.

(b) The player to the left of a challenger may challenge the challenger(s) and the original player as long as the latest challenger does not repeat the statement of divisibility of the original player or any other challenger.

(c) Every player may challenge the previous challenger(s) and original player **once** before the next player takes his turn.

(d) To end the challenge, players should reference the Divisibility War Key.

(e) If the Divisibility War Key proves any player completely correct, the player or challenger with the correct statement of divisibility gets as many count chips as tests that hold for the number on the card in question.

(f)If the Divisibility War Key proves no player completely correct, no player gets any chips.

8. Each player takes his turn to complete a round.

9. At the end of each round, the player with the most count chips wins the round.

10. The winner of the round collects all cards placed during the round and places these cards at the bottom of his pack. If at the end of a round, two or more players have the same number of count chips there is a war. The following must be done during a war:

(a) The players with the same number of count chips each play three cards face down and a fourth face up (a player with insufficient cards remaining puts down as many cards as he has, placing the last card face up. His opponents match this number).

(b). The player with the largest number on his face-up card wins all of the cards in the war.

11. Rounds continue until time planned for the game runs out or a player runs out of cards. The player