

CSMP Mathematics for the Intermediate Grades Part II Blacklines

Note: This packet contains blackline masters for home activities, parent letters, and numerous activities that coordinate with *CSMP Mathematics for the Intermediate Grades, Part II*. There are no limits to the number of times these blacklines may be reproduced.

The Home Activity section begins with an introductory letter to parents/guardians. Subsequent home activities may be reproduced and cut off, one at a time, and sent home as appropriate. Then there are blacklines to coordinate with lessons in the five strands, N, L, G, P, and W organized in order, by strand. Following these are generic blacklines and forms for lesson notes.

McREL

IG-II HOME ACTIVITIES

Dear Parent/Guardian:

Activities that accompany various lessons in our mathematics program (*CSMP Mathematics for the Intermediate Grades*) will be sent home with your child periodically. They will be called “Home Activities” rather than “homework,” because we hope you will use them as an opportunity to become involved with your child in learning more about the *CSMP* tools, methods, and skills.

Some home activities will be follow-up or practice for a class lesson; others will be for enrichment or extension. Please keep all the activities and materials in the envelope provided. Some materials may be used more than once, and you may want to refer back to previous activities.

Sincerely,

IG-II HOME ACTIVITIES

N2

Today we worked with some new checkers on the Minicomputer, weighted checkers. Previously we have used ① checkers, and today we began to use these weighted checkers as well.

② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

When you put a ③ checker on a square, for example, it shows the same number as three regular checkers on that square. A ⑦ checker on a square is the same as seven regular checkers on that square.

With your child, make and use weighted checkers on your home Minicomputer. They are especially useful to practice multiplication facts and to look at parts of a multiplication calculation. For example:

<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td>③</td></tr><tr><td></td><td></td></tr></table>		③			<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td>③</td><td></td></tr></table>			③		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>③</td><td></td></tr><tr><td></td><td>③</td></tr></table>	③			③	$= 3 \times 429$	$\begin{array}{r} 3 \times 400 = 1200 \\ 3 \times 20 = 60 \\ 3 \times 9 = 27 \\ \hline 3 \times 429 = 1287 \end{array}$
	③															
③																
③																
	③															

N6

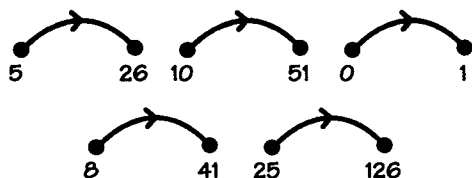
In mathematics class, we sometimes play a game called *Guess My Rule*. There are many variations of the game. For example:

- Guess the rule for a sequence of numbers
—a rule says what number comes next in the sequence.

3 4 7 11 18 ...

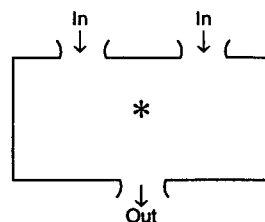
Rule: Add the two preceding numbers to get the next number in the sequence.

- Guess the rule for an arrow (relation).



Rule: Multiply by 5 and then add 1.

- Guess the rule for an operation—this can be described as a machine in which you put two numbers in, the machine operates on them, and then one number comes out.



$4 * 2 = 10$	$2 * 4 = 12$
$3 * 6 = 24$	$6 * 3 = 21$
$1 * 3 = 6$	$3 * 1 = 4$

Rule: The operation (machine) multiplies the two numbers and then adds the second number.
or
The machine adds 1 to the first number and then multiplies by the second number.

Note: Sometimes there will be more than one rule that “works” for the information given thus far. Players still try to guess the rule, and we give more clues until they do.

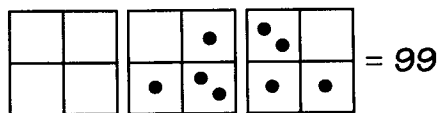
Ask your child to play *Guess My Rule*. Sometimes you be the rule-maker, and sometimes let your child be the rule-maker while you try to guess the rule.

IG-II HOME ACTIVITIES

N8

In class, we have been playing a game called *Minicomputer Golf*. This note has a description of the game. Try playing it with your child.

Start with a number on the Minicomputer using several checkers. For example:



Goal: 1500

Set a goal such as 1 500.

Rules: Players take turns moving just one checker from the square it's on to any other square.

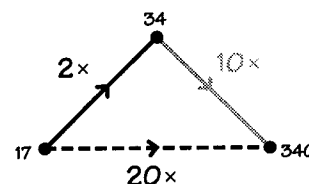
A move should take the number on the Minicomputer toward the goal.

The move that reaches the goal is the winning move.

N10

This arrow picture shows how you can multiply by 20 by first multiplying by 2 and then by 10. This is an example of using *composition*.

With your child, use composition to practice multiplying numbers by 20 or by 30.



N21

In math class we applied subtraction to keeping a sales record and a bank account.

Explain to your child how you keep a record of transactions in your checking and/or savings account. Especially emphasize where you subtract and where you add.

IG-II HOME ACTIVITIES

L1

Ask your child to name the positive divisors of several numbers and to explain how to find positive divisors of a number. For example, the number 6 has exactly four positive divisors: 1, 2, 3, and 6. Your child may explain that 6 is a multiple of 3, so 3 is a divisor of 6. We view a divisor as being the opposite of a multiple. With your child, make a list of numbers that have exactly three or exactly six positive divisors. Do you notice any patterns?

L3

In an earlier note we mentioned multiples and divisors. One observation we made for positive numbers is, for example, 12 is a multiple of 6, so 6 is a divisor of 12. In fact, 12 has several positive divisors, namely, 1, 2, 3, 4, 6, and 12 itself. There are some numbers, called *prime numbers*, that have exactly two positive divisors. For example, 5 is a prime number because its two positive divisors are 1 and 5 (itself).

Work with your child to list

- the prime numbers less than 50
- the prime numbers between 120 and 140

Note: Feel free to use a calculator to find prime numbers between 120 and 140.

L4

Your child is bringing home several statements. The problem is to draw a string picture that shows all these statements to be true.

With your child, write some other statements about the picture—true statements, false statements, and “cannot tell” statements.

G1

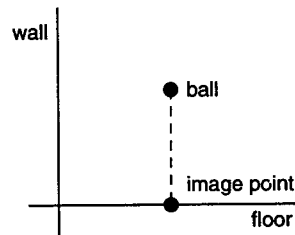
Your child is bringing home a measurement problem similar to ones we worked in class. With your child, work to draw a zigzag starting in one circle and ending in the other with the pieces of the zigzag having the lengths indicated in the problem.

G3

Your child is bringing home a triangle drawn in class. Ask your child to show you how to find the area of this triangle, using a method of surrounding it with a rectangle that has twice its area.

G5

In class, we have been learning about *parallel projection*. We have used the idea of balls dropping onto the floor parallel the wall to understand this concept.



Your child is bringing home a picture that you can use to play *Follow My Finger*. To play, move your finger from point to point on the curve while your child follows by moving his or her finger to the corresponding image point on the floor.

G7

Your child is bringing home a worksheet from math class. Work with your child to color all the shapes of a given area one color. The result will be a design or picture.

IG-II HOME ACTIVITIES

G10

Your child is bringing home a picture of intersecting lines: one is a scaled line for °F and the other for °C. Ask your child first to explain why the lines intersect where they do, and then to show you how to convert °F to °C or vice versa. Here the conversion method is geometric and uses the idea of parallel projection.

G11

We have been investigating the kinds of shadow shapes that can be created by projecting various solids (cylinders, spheres, cubes, and so on). Your child is bringing home some shadow shapes created in class. Can you guess which solids were used to produce these shadow shapes?

P9

In math class we have been investigating the frequency of use of letters in English; that is, which letters occur most often in the written English language, and which occur least often. With your child, watch the TV show *Wheel of Fortune* and observe which letters are chosen by contestants. Do they use any strategy based on letter use frequency?

Another application of letter use frequency is to break codes or to solve puzzles like cryptograms. If you enjoy solving cryptograms, work with your child to solve this one.

UCJCO ZI NIZWB TAWN

BIR GAIRFZU'N CJCO ZI.

Try to solve this calculator puzzle with your child.

The only keys you may use are $\boxed{4}$, $\boxed{6}$, $\boxed{+}$, $\boxed{-}$, $\boxed{\times}$, $\boxed{\div}$, and $\boxed{=}$.

You may use the keys in any way you like.

Start with 0 on the display. Try to put 99 (or 200) on the display.

Do a similar problem with only the $\boxed{5}$, $\boxed{7}$, $\boxed{+}$, $\boxed{-}$, $\boxed{\times}$, $\boxed{\div}$, and $\boxed{=}$ key.

W15

When you press the keys on a calculator in a particular order to obtain a specific number, you create a “calculator sentence.” For example, this is a calculator sentence for 7:

$$\boxed{8} \boxed{\times} \boxed{2} \boxed{+} \boxed{5} \boxed{\div} \boxed{3} \boxed{=} \boxed{7}$$

Note: To create calculator sentences you need a calculator that responds to instructions in the order in which they are given (does chain operations). To check yours, enter $\boxed{4} \boxed{+} \boxed{1} \boxed{\times} \boxed{2} \boxed{=}$. If you have 10 on the display, then your calculator functions in this manner.

With your child, fill in the operation keys (+, −, ×, or ÷) in these calculator sentences. Check the results with your calculator.

$$\begin{array}{l} \boxed{8} \boxed{} \boxed{2} \boxed{} \boxed{5} \boxed{} \boxed{3} \boxed{=} \boxed{5} \\ \boxed{8} \boxed{} \boxed{2} \boxed{} \boxed{5} \boxed{} \boxed{3} \boxed{=} \boxed{8} \\ \boxed{7} \boxed{} \boxed{2} \boxed{} \boxed{5} \boxed{} \boxed{1} \boxed{=} \boxed{10} \\ \boxed{7} \boxed{} \boxed{2} \boxed{} \boxed{5} \boxed{} \boxed{1} \boxed{=} \boxed{1} \end{array}$$

You and your child may like to create calculator sentences like these for each other to solve.

N5

1
0

1
0

1
0

1
0

1
0

Dear Parent/Guardian:

We are working on a paper/pencil method (algorithm) for multiplication in our math class. This may be a little later than you might have expected. However, as you should be aware from earlier letters, this is not the beginning of our work on the multiplication concept, nor on solving multiplication problems. In fact, our current work on a paper/pencil algorithm really summarizes many of our earlier experiences with multiplication.

The algorithm suggests that we use a sequence of routine steps, and our earlier experiences help us understand reasons for the steps. For example:

$$\begin{array}{r}
 138 \\
 \times 43 \\
 \hline
 3 \times 138 = 414 \\
 40 \times 138 = 5520 \\
 \hline
 5934
 \end{array}$$

In doing multiplication calculations at home, remember that a paper/pencil method is only one method. Sometimes it might be better to use mental methods, number patterns, or even a calculator. We hope that a variety of methods will help children develop the ability to check their work and recognize reasonable answers. Also, remember that calculation should be a tool for solving interesting problems rather than simply a chore done for its own sake.

Sincerely,

N21(a)

Sales Record

Complete.

Goal:

2 000

270

sales

need to sell

1st week

329

sales

need to sell

2nd week

394

sales

need to sell

3rd week

368

sales

need to sell

4th week

295

sales

need to sell

5th week

How many boxes of greeting cards must the band members sell in the 6th week to meet their goal? _____

N21(b)

Complete this record of Amelia's bank account.

March 10 balance:	\$75.28	
	<u>-\$4.55</u>	--- Check written March 11
March 11 balance:	<input type="text"/>	
	<u>-\$8.56</u>	--- Check written March 12
March 12 balance:	<input type="text"/>	
	<u>-\$7.60</u>	--- Check written March 14
March 14 balance:	<input type="text"/>	
	<u>+\$8.75</u>	--- Deposit March 15
March 15 balance:	<input type="text"/>	

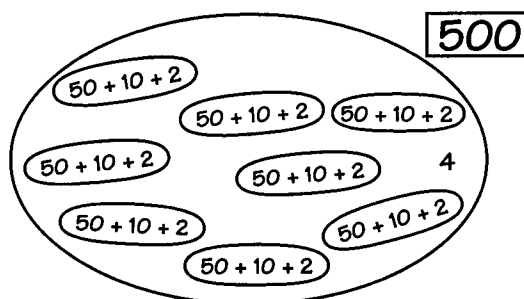
What is the difference between the starting balance on March 10 the ending balance on March 15? _____

How much would Amelia need to deposit on March 16 to bring her balance to \$80.00? _____

Dear Parent/Guardian:

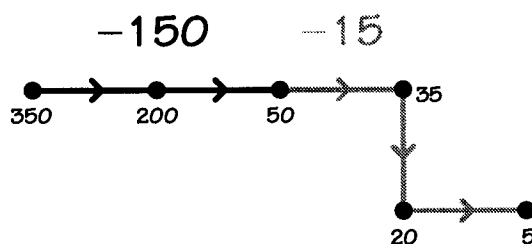
We often work on division in our math class; however, we have not yet finalized a routine paper/pencil algorithm for division. The following are examples of some division experiences your child has had. Please do not expect proficiency with a paper/pencil long division method yet, even though the record we keep looks like a long division calculation. At this time we are still working on division concepts and understanding the division process. These experiences will help us later to understand a routine step-by-step method.

Example 1. Share 500 stamps among 8 children.



$$\begin{array}{r} 62 \text{ R} = 4 \\ 8 \overline{)500} \\ \underline{-400} \quad 50 \text{ each} \\ 100 \\ \underline{-80} \quad 10 \text{ each} \\ 20 \\ \underline{-16} \quad 2 \text{ each} \\ 4 \end{array}$$

Example 2. How many packages of 15 can be filled with 350?



$$\begin{array}{r} 23 \text{ R} = 5 \\ 15 \overline{)350} \\ \underline{-150} \quad 10 \text{ packages} \\ 200 \\ \underline{-150} \quad 10 \text{ packages} \\ 50 \\ \underline{-45} \quad 3 \text{ packages} \\ 5 \end{array}$$

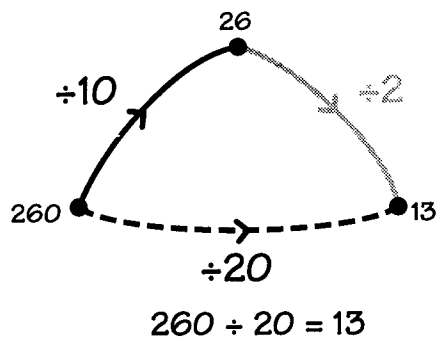
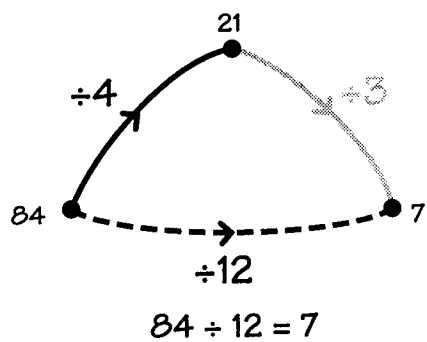
Example 3. Patterns

$$\begin{array}{ll} 56 \div 7 = 8 & 170 \div 5 = 34 \\ 560 \div 7 = 80 & 175 \div 5 = 35 \\ 5600 \div 7 = 800 & 185 \div 5 = 37 \end{array}$$

$$\begin{array}{llll} \begin{array}{r} 6 \\ 7 \overline{)42} \end{array} & \begin{array}{r} 6 \text{ R} = 1 \\ 7 \overline{)43} \end{array} & \begin{array}{r} 6 \text{ R} = 2 \\ 7 \overline{)44} \end{array} & \begin{array}{r} 6 \text{ R} = 3 \\ 7 \overline{)45} \end{array} \\ \begin{array}{r} 6 \text{ R} = 4 \\ 7 \overline{)46} \end{array} & \begin{array}{r} 6 \text{ R} = 5 \\ 7 \overline{)47} \end{array} & \begin{array}{r} 6 \text{ R} = 6 \\ 7 \overline{)48} \end{array} & \begin{array}{r} 7 \\ 7 \overline{)49} \end{array} \end{array}$$

(over)

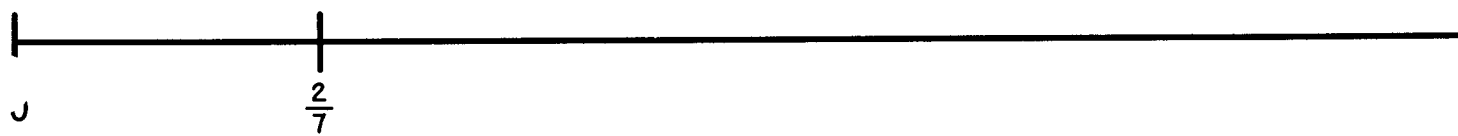
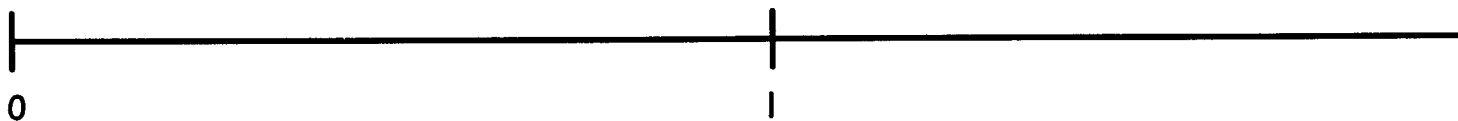
Example 4. Composition



You may like to do some similar division problems with your child. Let your child help decide how many to give to each person, how many packages to fill at one time, what pattern to use, or what composition to use.

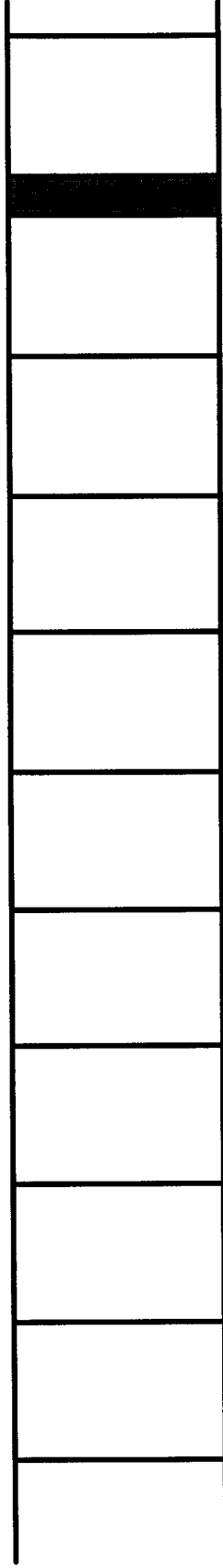
Sincerely,

N30



Binary Abacus

Two checkers on a board
trade for
one checker on the next board to the left.



N31(a)

N31(b)

Binary Abacus

Two checkers on a board
trade for
one checker on the next board to the left.

Binary Abacus

Two checkers on a board
trade for
one checker on the next board to the left.

N34

572

1 007

258

134

1 963

-8

2 004

569

-1

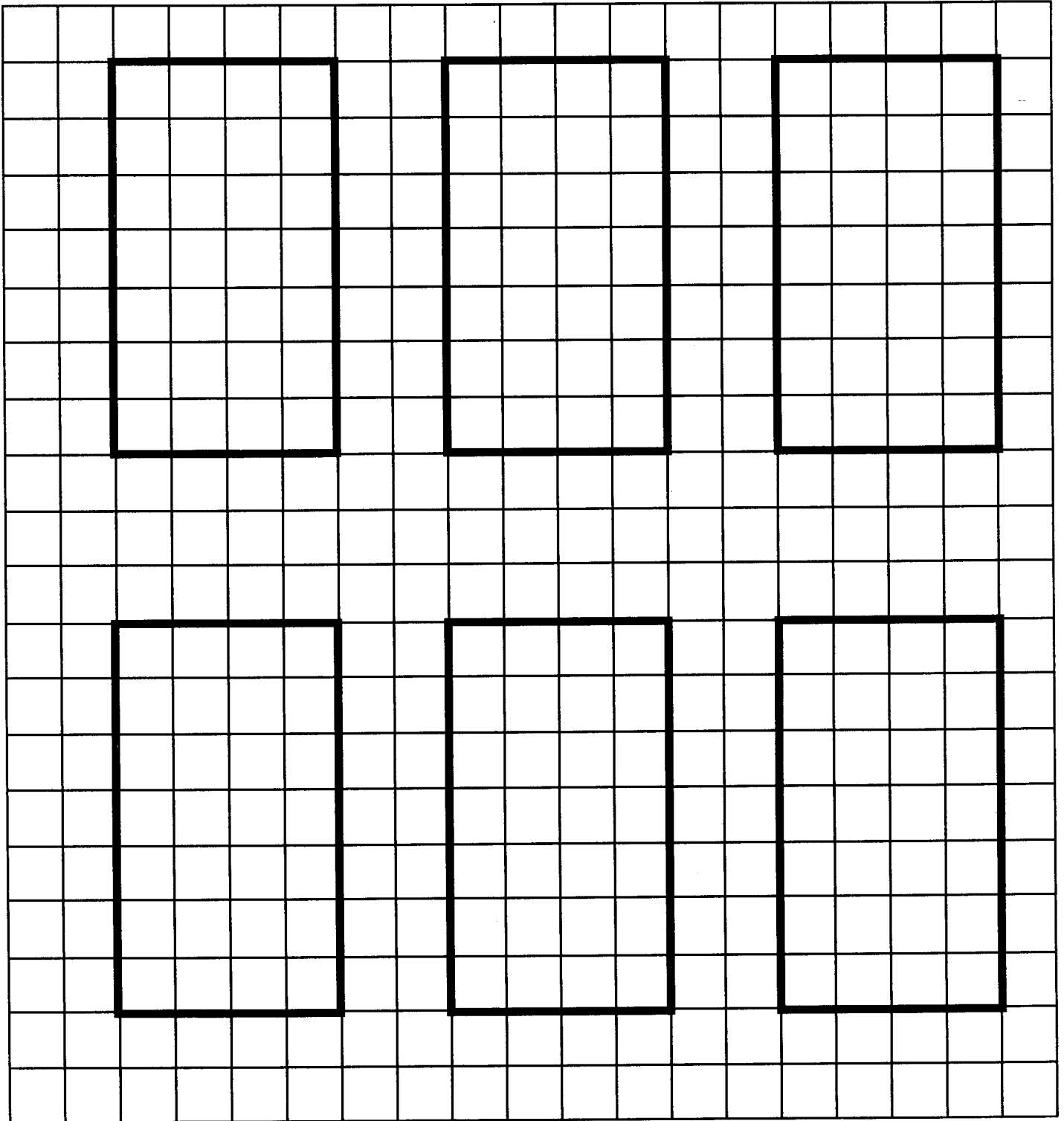
-19

3 055

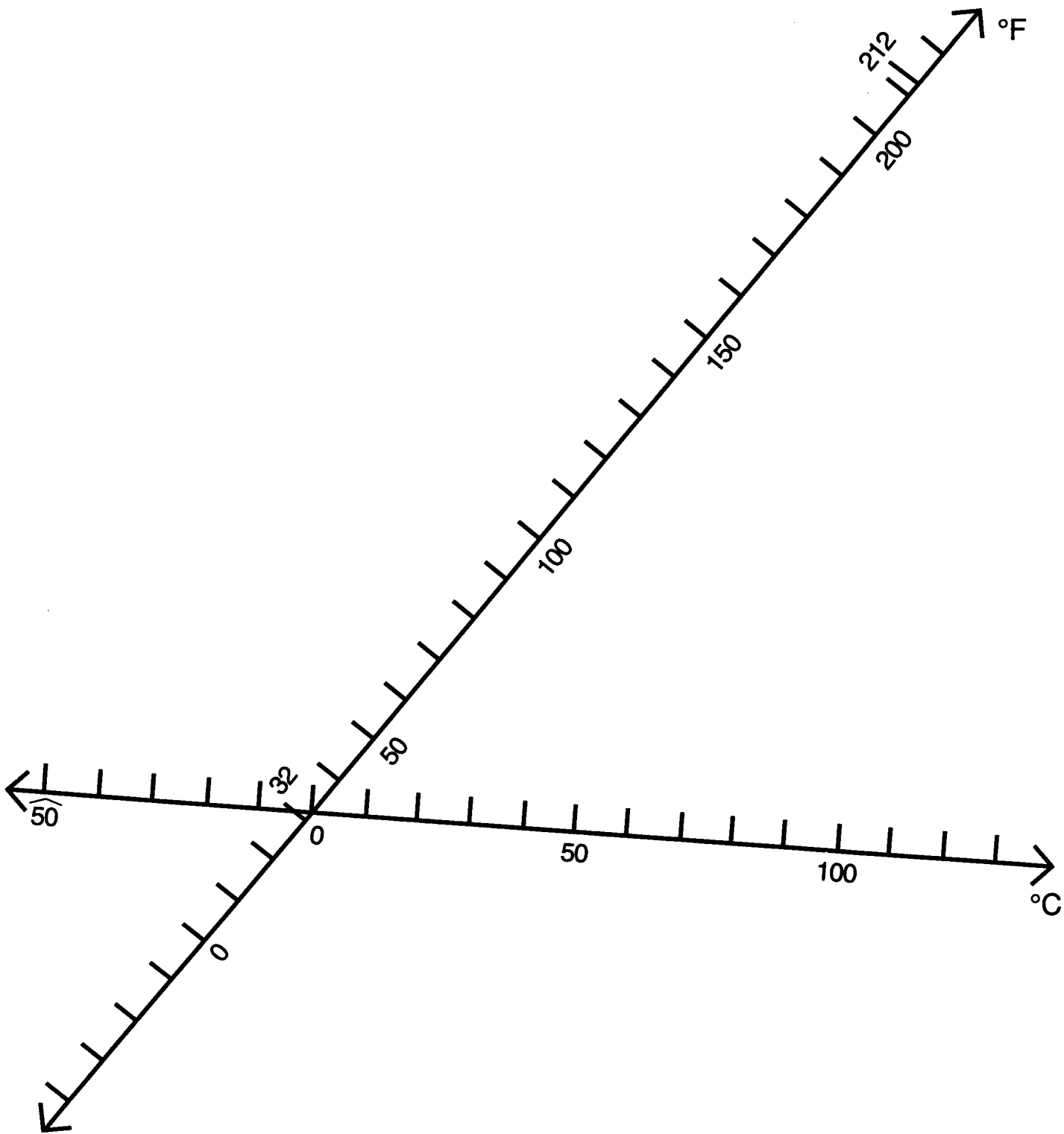
91

70

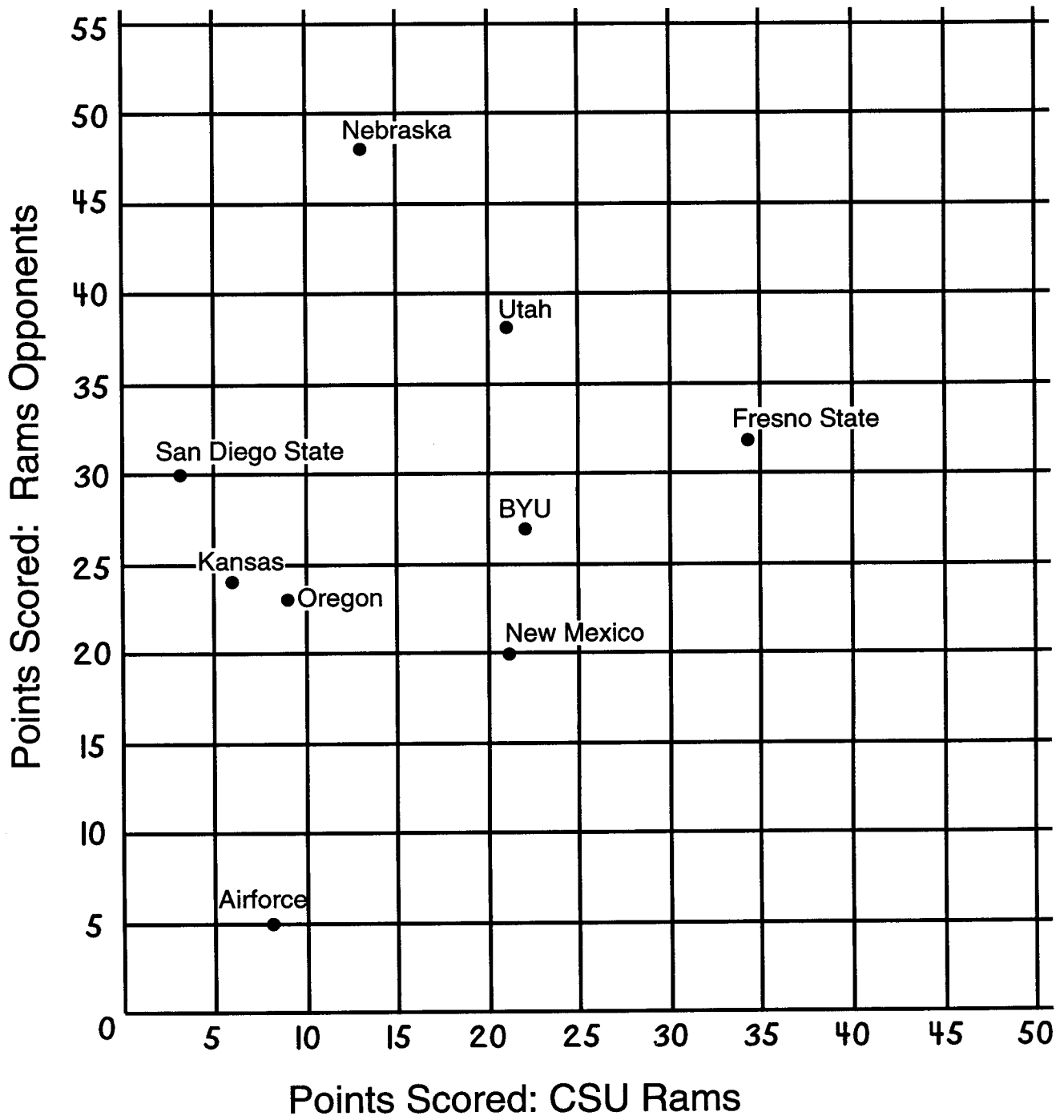
376



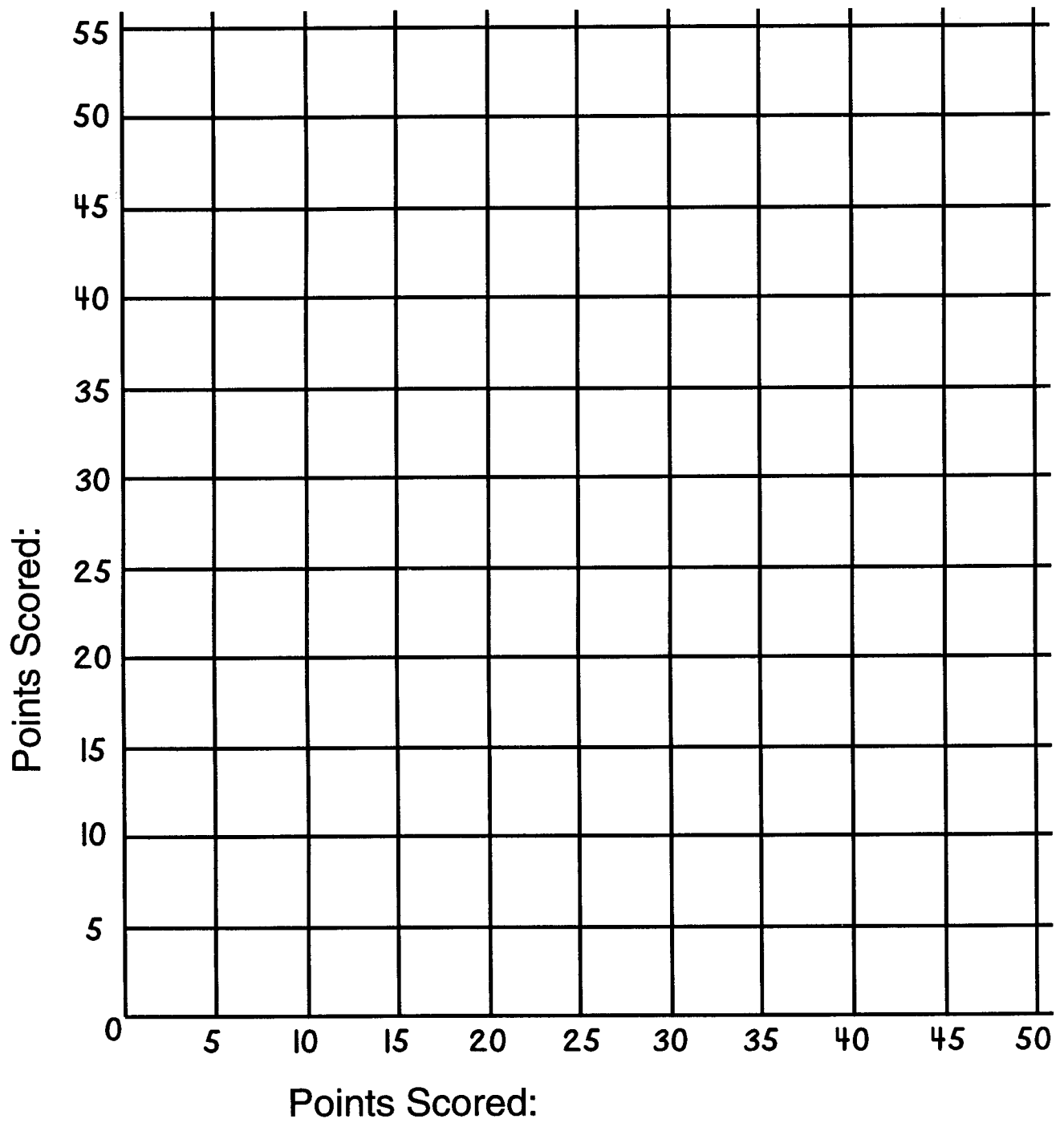
G10



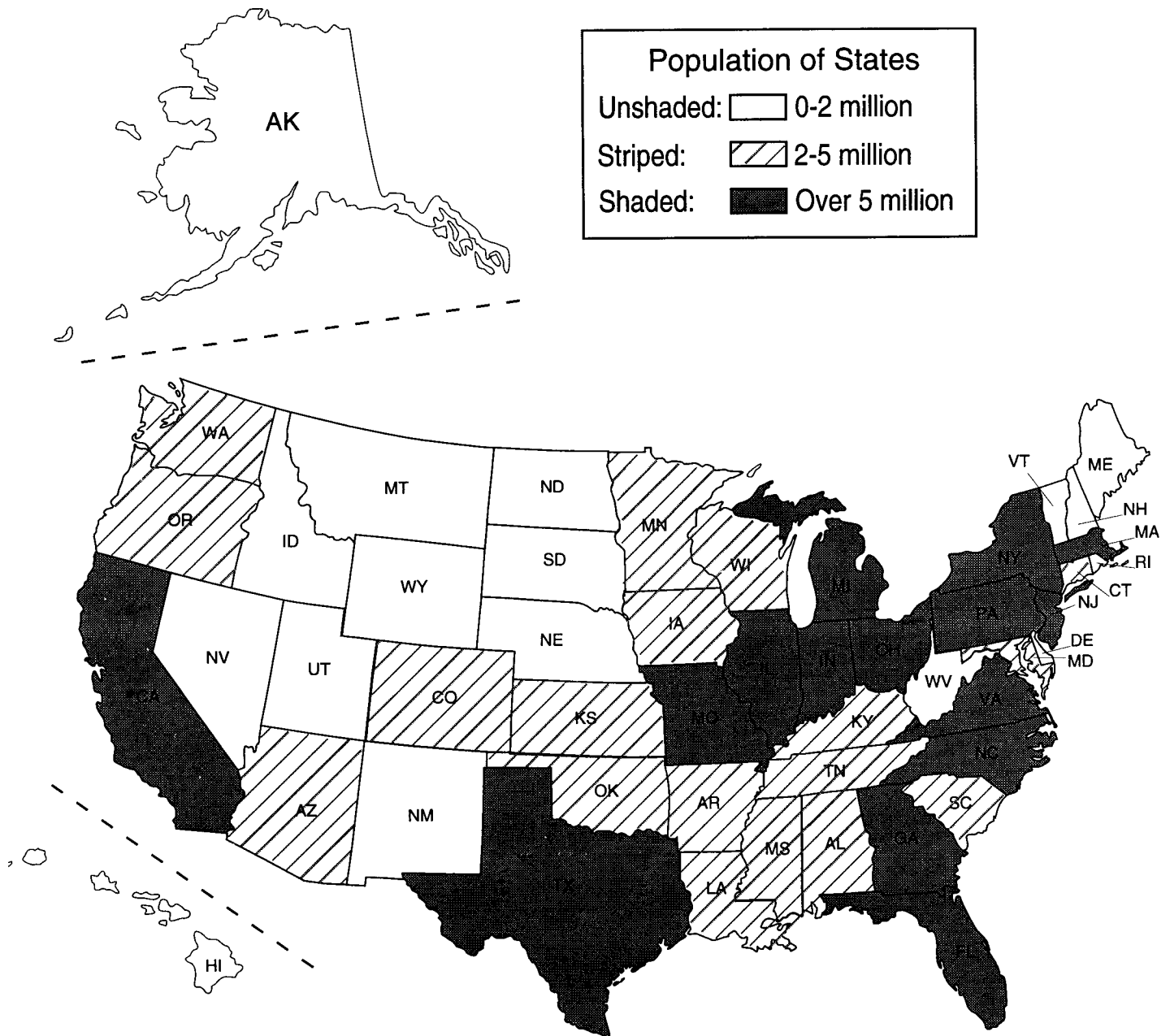
P2(a)



P2(b)



P2(c)



-
- Facts:
- 1) Florida has more than 12 million people.
 - 2) Utah is larger in area than Nebraska.
 - 3) Louisiana has more people than Alabama.

P2(d)

Label the dots for these states.

Nebraska

Utah

Florida

Illinois

Massachusetts

Louisiana

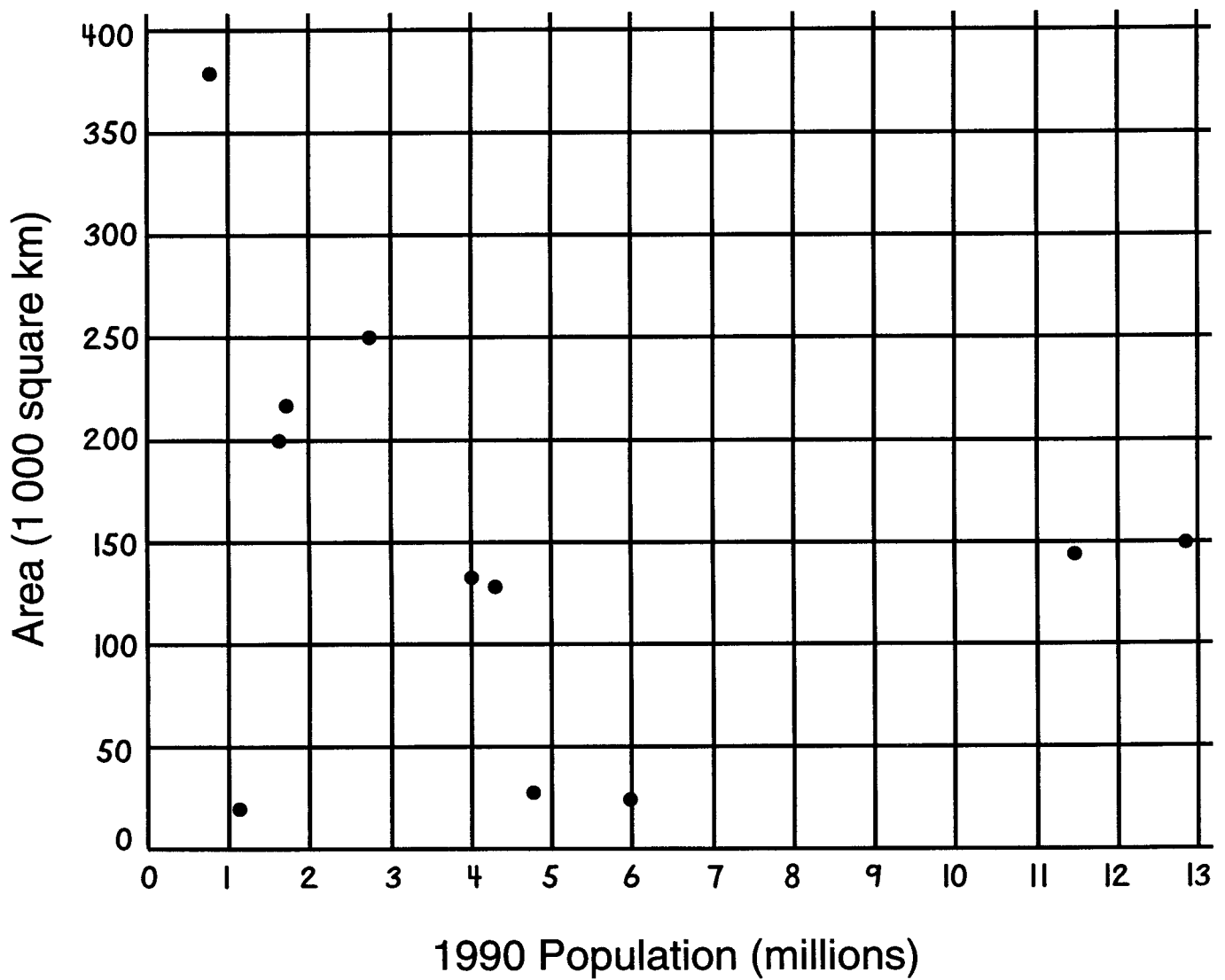
Montana

Maryland

Alabama

Hawaii

Oregon



CHECKER TRAPPED AFTER

P3

[illegible]

GAME ENDED AFTER

1 move	2 moves	3 moves	4 moves	5 moves	6 moves	7 moves	8 moves	9 moves	10 moves	more than 10 moves

RRRRR	RRBBR	BBBBB	BBRRB
RRRRB	RBRRB	BBBBR	BRBBR
RRRBR	RBRBR	BBBRB	BRBRB
RRBRR	RBBRR	BBRBB	BRRBB
RBRRR	BRRRB	BRBBB	RBBBR
BRRRR	BRRBR	RBBBB	RBBRB
RRRBB	BRBRR	BBBRR	RBRBB
RRBRB	BBRRR	BBRBR	RRBBB

Frequency

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Totals
A							
B							
C							
D							
E							
F							
G							
H							
I							
J							
K							
L							
M							
N							
O							
P							
Q							
R							
S							
T							
U							
V							
W							
X							
Y							
Z							

P9(b)

Frequency of letters in English	Value of letters in Scrabble	Number of tiles in Scrabble
E — 12.3	E — 1	E — 12
T — 9.6	T — 1	A — 9
A — 8.1	A — 1	I — 9
O — 7.9	O — 1	O — 8
N — 7.2	N — 1	T — 6
I — 7.2	I — 1	N — 6
S — 6.6	S — 1	R — 6
R — 6.0	R — 1	S — 4
H — 5.1	L — 1	L — 4
L — 4.0	U — 1	U — 4
D — 3.7	D — 2	D — 4
C — 3.2	G — 2	G — 3
U — 3.1	C — 3	H — 2
P — 2.3	P — 3	C — 2
F — 2.3	M — 3	P — 2
M — 2.3	B — 3	F — 2
W — 2.0	H — 4	M — 2
Y — 1.9	F — 4	W — 2
B — 1.6	W — 4	Y — 2
G — 1.6	Y — 4	B — 2
V — 0.9	V — 4	V — 2
K — 0.5	K — 5	K — 1
Q — 0.2	X — 8	Q — 1
X — 0.2	J — 8	X — 1
J — 0.1	Q — 10	J — 1
Z — 0.1	Z — 10	Z — 1

Total 100

W2(a)

Set of Problems #1
(14-6583R)

Student Name _____
Date _____

Responses

Arrows	p.3	(+4, -2, x2, x3, +1)	18	_____
	p.6	(+5, +3, +10 composition)	9	_____
	p.11	(subtraction, place-value wipe out)	12	_____
	p.18	(10x, 7x composition)	4	_____
	p.23	(midpoints)	9	_____
	p.28	(+7, -9)	8	_____
	p.30	(Guess My Rule)	1	_____
	p.32	(is a positive divisor of)	5	_____
Strings	p.4	(pos. divisors of 60, greater than 25)	6	_____
	p.24	(logical thinking with numbers)	5	_____
	p.26	(String Game with numbers)	2	_____
	p.32	(pos. divisors of \square , multiples of 5)	4	_____
Calculations with +, -, x, ÷	p.7	(subtraction)	8	_____
	p.9	(story problem, mult. and division)	6	_____
	p.10	(addition, subtraction, multiplication)	6	_____
	p.14	(sharing and fractions)	7	_____
	p.15	(multiplication and division)	21	_____
	p.20	(repeated addition, multiplication)	6	_____
	p.25	(adding 5s, 4s, 8s, patterns)	6	_____
	p.31	(addition with decimals, average)	2	_____
Geometry and Measurement	p.8	(fractional parts of shapes)	4	_____
	p.13	(length and division)	6	_____
	p.19	(length)	2	_____
	p.22	(area of rectangles and triangles)	6	_____
Detective Stories	p.2	(Minicomputer, strings)	5	_____
	p.5	(decimal number line, Minicomputer)	6	_____
	p.16	(Minicomputer, arrows)	13	_____
Combinations/Probability/Statistics	p.12	(story problem, counting tree)	4	_____
	p.17	(story problem, cord picture)	8	_____
	p.21	(scatter plot)	10	_____
	p.27	(counting parallelograms)	4	_____
	p.29	(tournament tree)	8	_____

W2(b)

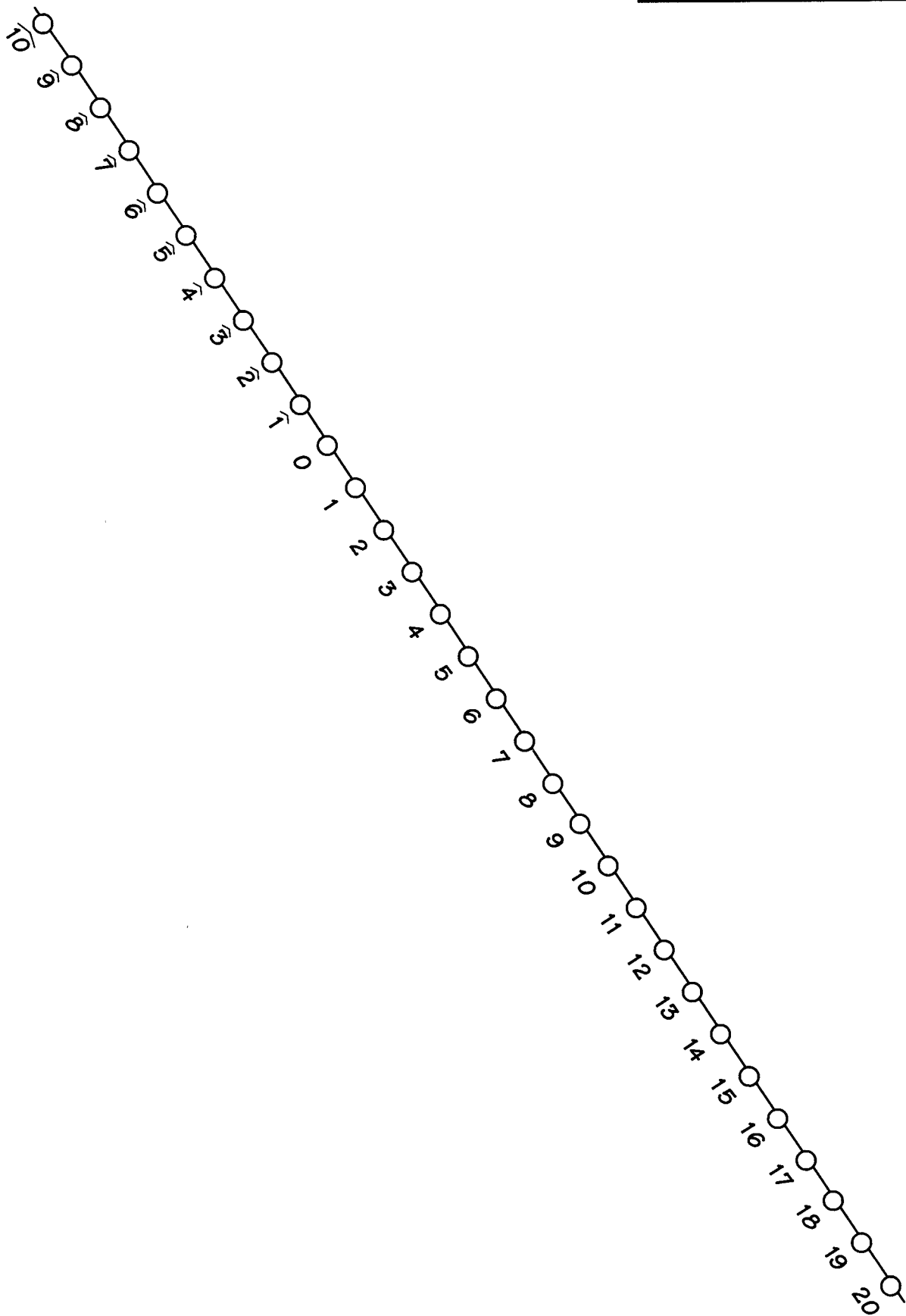
Dear Parent/Guardian:

With this letter, we are sending home your child's *Set of Problems #1* Workbook. It contains pages with problems from various areas of our mathematics curriculum. During the past couple weeks, the students have been working independently in this booklet.

Please be aware that the workbook pages become progressively more difficult. Time constraints and individual understanding, skills, and experiences will influence how much of the booklet a student completes. We do not expect every student to complete every page, especially since the last one-third of the booklet is designed for extra challenge. You may wish to discuss pages that were difficult for your child or practice some of these concepts at home.

Other workbooks will be sent home later in the year. These should give you an idea of some of the topics and concepts being introduced in our mathematics curriculum as well as help you monitor your child's progress.

Sincerely,



Set of Problems #2
(14-6591R)

Student Name _____
Date _____

			Responses
Arrows	p.3	(-4, x2, ÷2, -5, +10, +3)	20 _____
	p.14	(+10, -7)	4 _____
	p.17	(linear equation)	5 _____
	p.19	(is a positive divisor of)	18 _____
	p.21	(6x, 10x composition)	5 _____
	p.23	(place-value wipe out)	11 _____
	p.25	(+7, compositions)	3 _____
	p.30	(2x, 3x arrow roads)	7 _____
	p.31	(composition)	14 _____
Minicomputers	p.13	(weighted checkers)	7 _____
	p.16	(dynamics)	4 _____
Strings	p.2	(prime numbers, multiples of 7)	6 _____
	p.12	(multiples of 3, pos. divisors of 15)	2 _____
	p.24	(logical thinking with numbers)	6 _____
	p.27	(positive divisors)	7 _____
	p.29	(String Game with numbers)	2 _____
Calculations with +, -, x, ÷	p.5	(subtraction)	7 _____
	p.10	(add., sub., mult., division)	7 _____
	p.15	(multiplication and division)	21 _____
	p.18	(repeated addition and mult.)	10 _____
	p.26	(add., sub., mult., with decimals)	12 _____
	p.31	(multiplication)	4 _____
Geometry and Measurement	p.7	(length and perimeter)	3 _____
	p.20	(recognizing triangles)	4 _____
	p.28	(area of rectangles)	4 _____
Detective Stories	p.4	(Minicomputer, odd numbers)	5 _____
	p.9	(arrow picture, double)	14 _____
	p.32	(10x, divisors, Minicomp., strings)	12 _____
Number Sense/Probability	p.6	(story problem)	6 _____
	p.8	(story problem, average)	2 _____
	p.11	(number line)	8 _____
	p.22	(story problem, combinations)	6 _____

Set of Problems #3
(14-6609R)

Student Name _____
Date _____

			Responses
Arrows	p.7	(x, ÷)	11 _____
	p.8	(pair tags)	6 _____
	p.11	(3x, +12 arrow roads)	3 _____
	p.18	(5x, 10x composition)	4 _____
	p.22	(calculator relations)	8 _____
	p.24	(is less than, multiplication facts)	10 _____
	p.26	(linear equation)	5 _____
	p.28	(is a multiple of)	15 _____
	p.29	(10x, ÷2 arrow road)	9 _____
Minicomputers	p.5	(weighted checkers)	7 _____
	p.13	(dynamics)	4 _____
Strings	p.2	(greater than 20, multiples of 8)	7 _____
	p.19	(even, prime numbers)	5 _____
	p.30	(multiples of 3, pos. divisors of 24)	5 _____
Calculations with +, -, x, ÷	p.10	(add., subt., mult., division)	17 _____
	p.15	(division)	16 _____
	p.16	(story problem, mult. and division)	6 _____
	p.21	(add., mult., related problems)	6 _____
	p.25	(story problems)	4 _____
	p.32	(multiplication)	8 _____
Geometry and Measurement	p.6	(parallel projection)	2 _____
	p.12	(area of triangles and rectangles)	6 _____
	p.20	(length story problem)	3 _____
	p.23	(area of triangles and rectangles)	5 _____
	p.27	(length and area)	3 _____
Detective Stories	p.14	(Minicomputer, is less than)	9 _____
	p.31	(arrow pic., calculator, Minicomp.)	13 _____
Number Sense/Statistics	p.4	(number line)	4 _____
	p.9	(number line, decimals)	11 _____
	p.17	(scatter plot)	6 _____

Set of Problems #4
(14-6617R)

Student Name _____
Date _____

			Responses
Arrows	p.2	(-7, 3x)	10 _____
	p.4	(+9)	14 _____
	p.11	(10x, composition)	6 _____
	p.16	(is a positive divisor of)	13 _____
	p.24	(10x, +8 arrow roads)	17 _____
	p.30	(composition)	9 _____
Minicomputers	p.9	(weighted checkers)	7 _____
	p.18	(pos. and negative checkers)	7 _____
	p.25	(dynamics)	3 _____
Strings	p.3	(pos. divisors of 24, multiples of 4)	6 _____
	p.8	(positive divisors)	20 _____
	p.15	(even, multiples of 5, less than 100)	8 _____
	p.22	(multiples of 3 and 7)	6 _____
	p.32	(positive divisors)	6 _____
Calculations with +, -, x, ÷	p.12	(multiplication)	9 _____
	p.14	(story problems)	9 _____
	p.23	(division)	11 _____
	p.31	(story problems)	4 _____
Fractions	p.17	(fractions on num. line, comparison)	12 _____
	p.19	(Bobo story)	13 _____
	p.21	($\frac{4}{5}x$, composition)	11 _____
	p.26	(locate on number line)	9 _____
Geometry and Measurement	p.5	(length puzzle)	14 _____
	p.7	(recognizing parallelograms)	2 _____
	p.13	(length)	3 _____
Detective Stories	p.6	(arrow picture, strings)	9 _____
	p.20	(decimals on Minicomp. and arrow pict.)	17 _____
	p.28,29	(arrow roads)	29 _____
Number Sense/Combinations	p.10	(number line)	6 _____
	p.27	(counting routes)	2 _____

Set of Problems #5
(14-6625R)

Student Name _____
Date _____

Responses

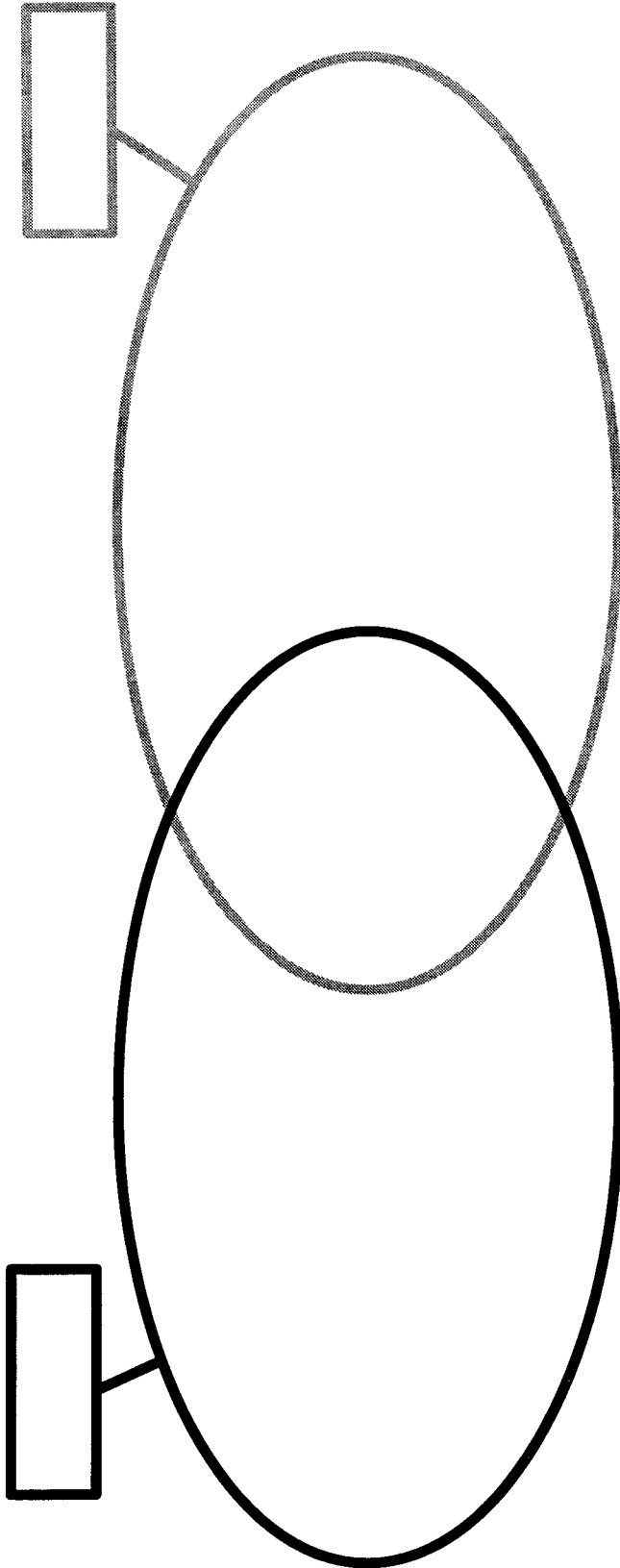
Arrows	p.3	(+5)	9	_____
	p.4	(10x, composition)	8	_____
	p.8	(+5, -10, 2x, +4, 3x, -5)	18	_____
	p.13	(subtraction composition)	10	_____
	p.21	(tree for arrow roads)	9	_____
	p.23	(+0.4, +0.02)	11	_____
	p.25	(+5, ÷5, +2, ÷2, +3, ÷3)	23	_____
<hr/>				
Minicomputers	p.20	(dynamics)	4	_____
<hr/>				
Strings	p.2	(greater than $\widehat{50}$, less than $\widehat{10}$)	9	_____
	p.14	(multiples of 8 and 5, divisors of 40)	8	_____
	p.24	(logical thinking with numbers)	6	_____
	p.27	(String Game with numbers)	2	_____
	p.29	(less than 20, prime)	6	_____
	p.31	(story problem)	2	_____
<hr/>				
Calculations with +, -, x, ÷	p.7	(add., sub., mult., decimals)	9	_____
	p.15	(story problem, sharing)	4	_____
	p.22	(story problems)	3	_____
	p.26	(story problems)	9	_____
	p.28	(story problems)	8	_____
	p.30	(related facts)	4	_____
<hr/>				
Fractions	p.17	($\frac{5}{6}$ x, composition)	11	_____
	p.18	(fractions on num. line, comparison)	11	_____
<hr/>				
Geometry and Measurement	p.10	(length, comparisons)	6	_____
	p.12	(dividing squares and rectangles)	6	_____
<hr/>				
Detective Stories	p.6	(arrow picture, strings)	8	_____
	p.16	(Minicomputer arrow picture)	13	_____
	p.32	(string pictures)	3	_____
<hr/>				
Number Sense/Combinations	p.5	(number line)	6	_____
	p.9	(binary abacus)	4	_____
	p.11	(counting routes)	2	_____
	p.19	(story problem)	7	_____

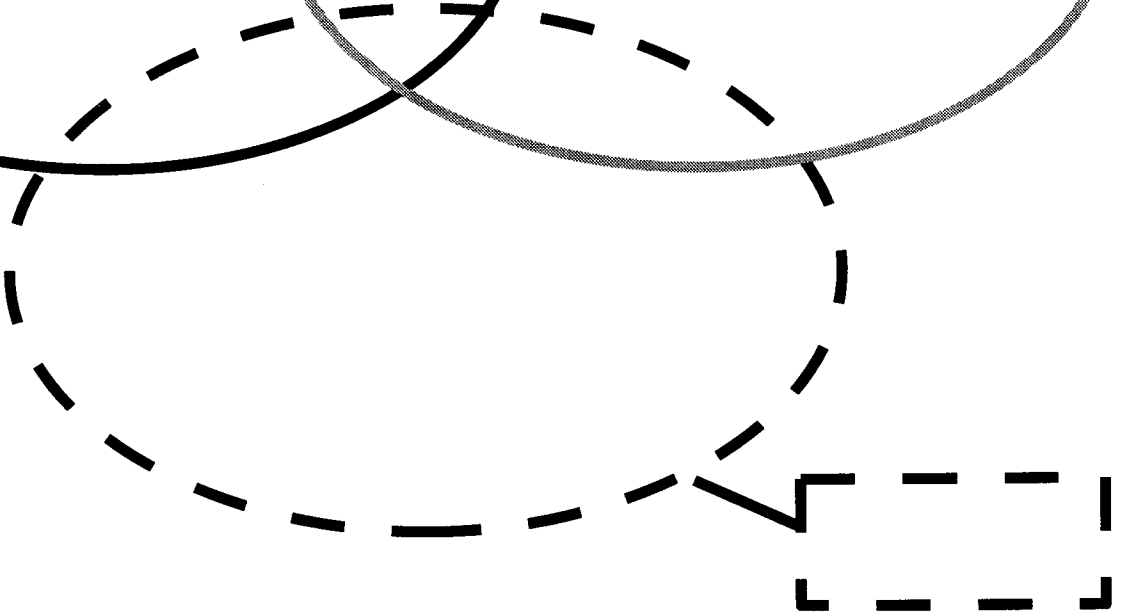
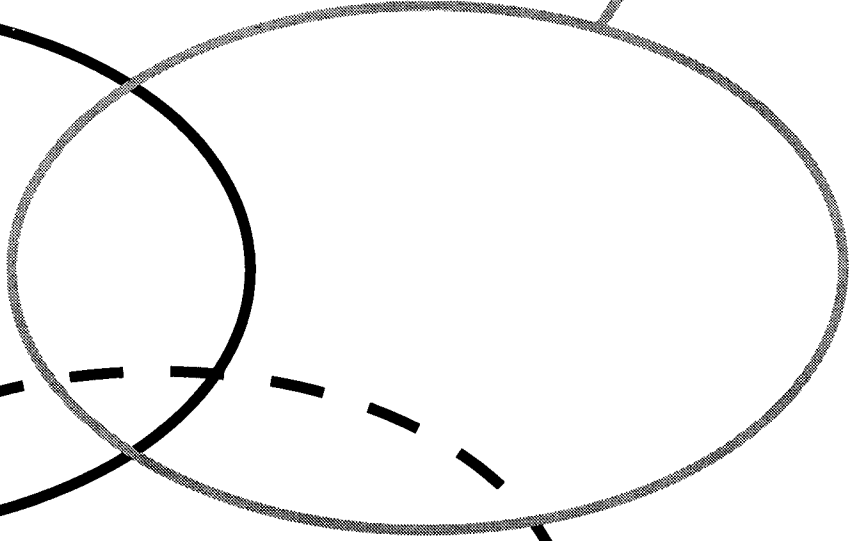
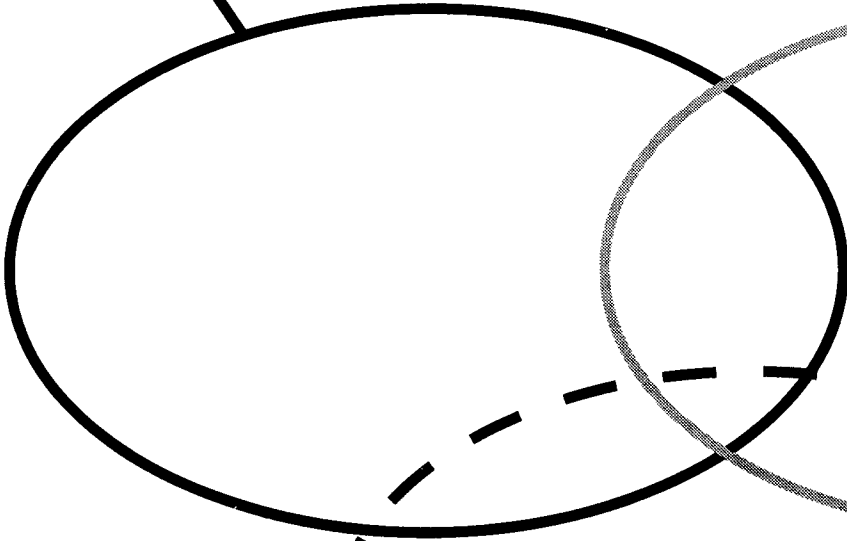
0–109 Numeral Chart

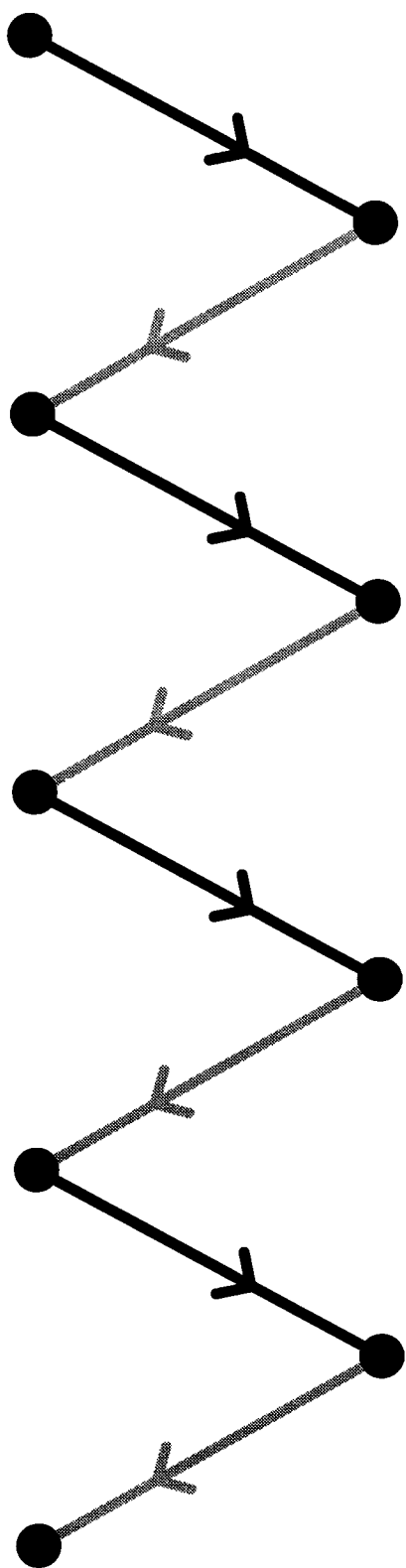
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10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108	109

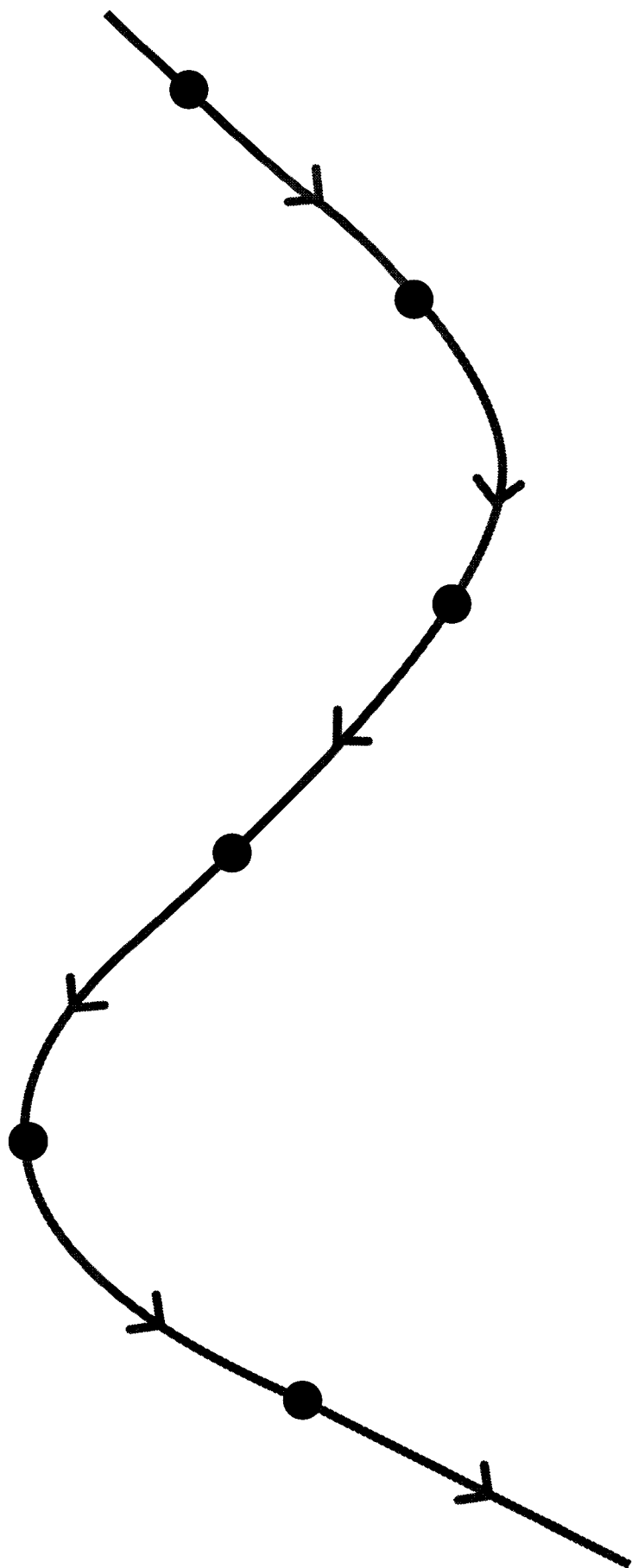
Multiplication Table

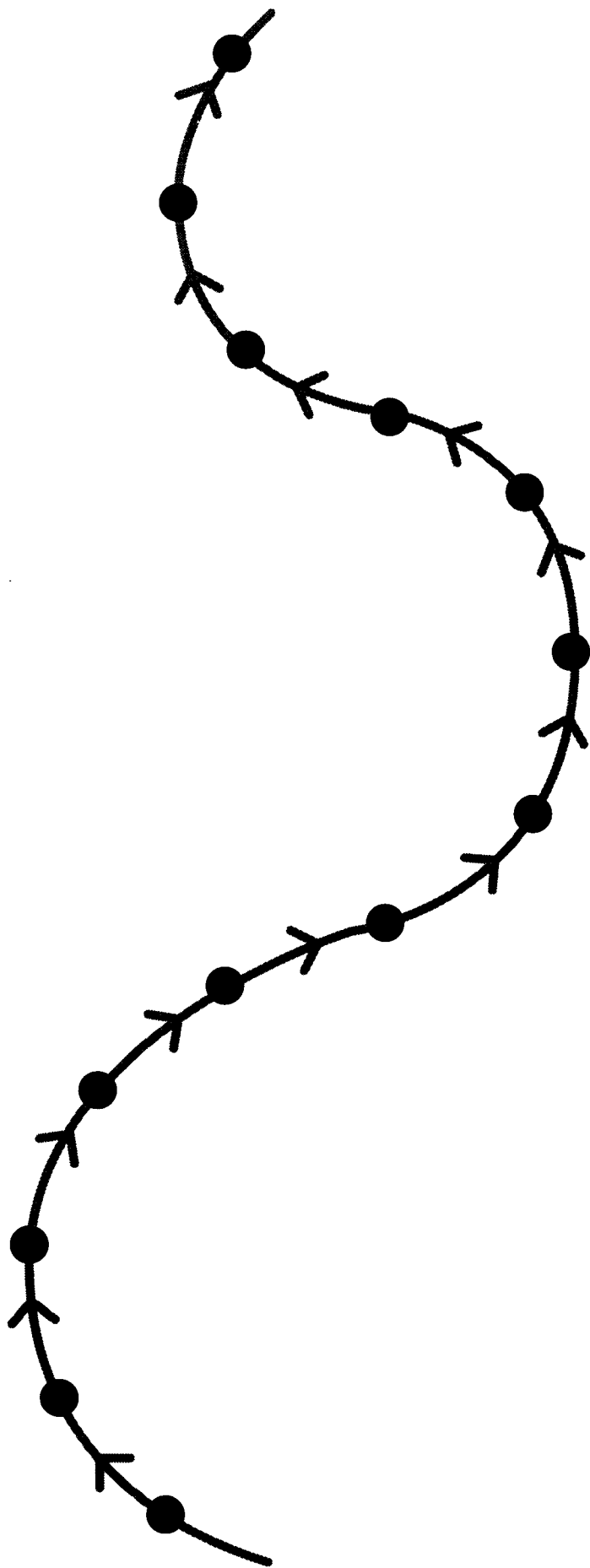
1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

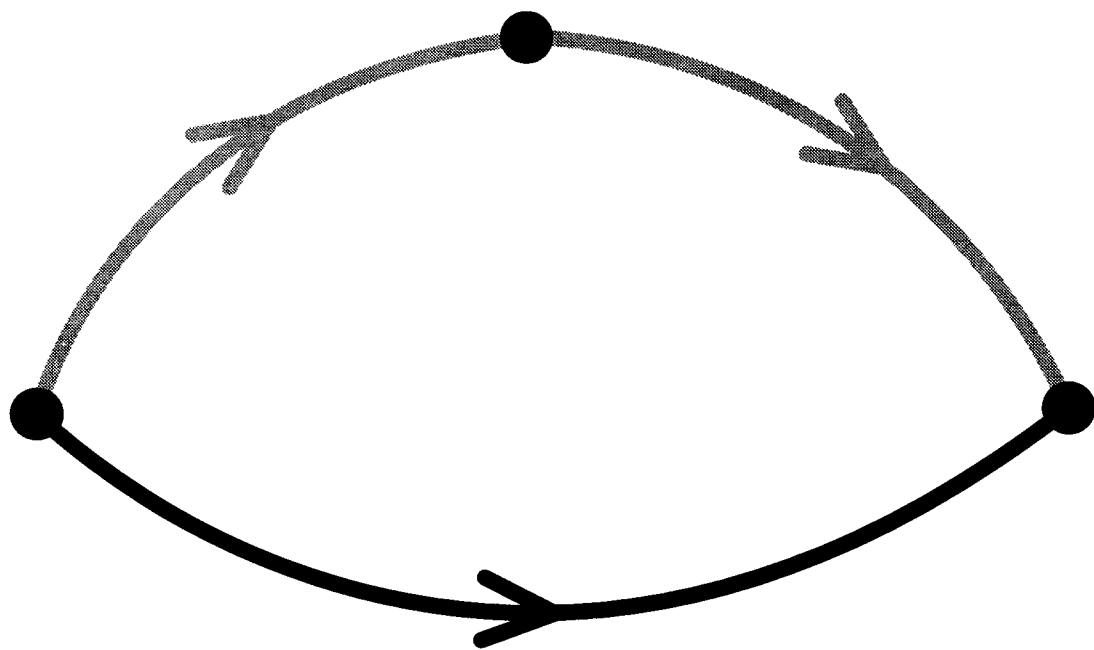
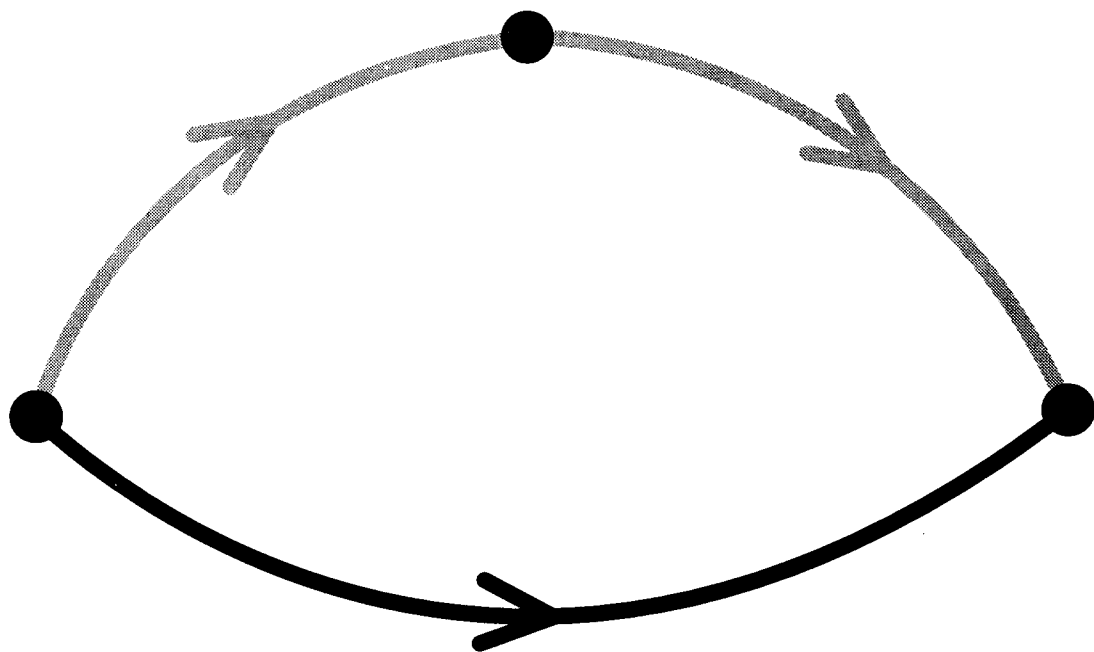


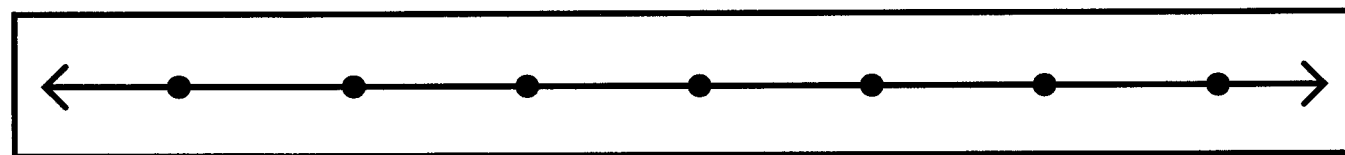
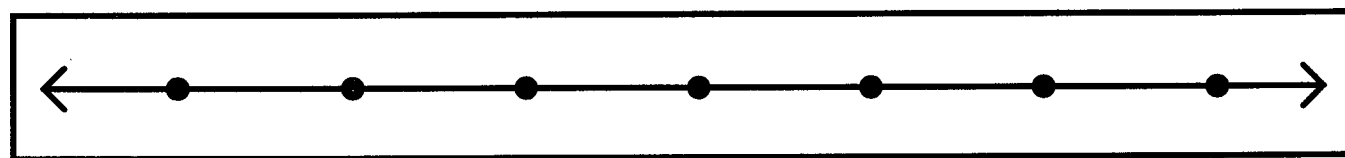
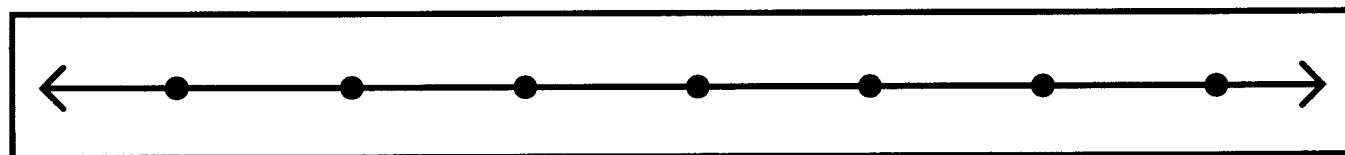
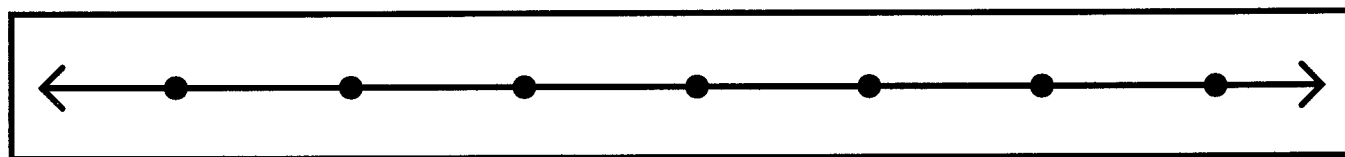
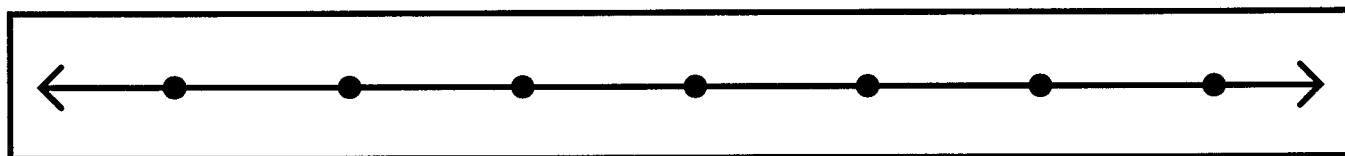


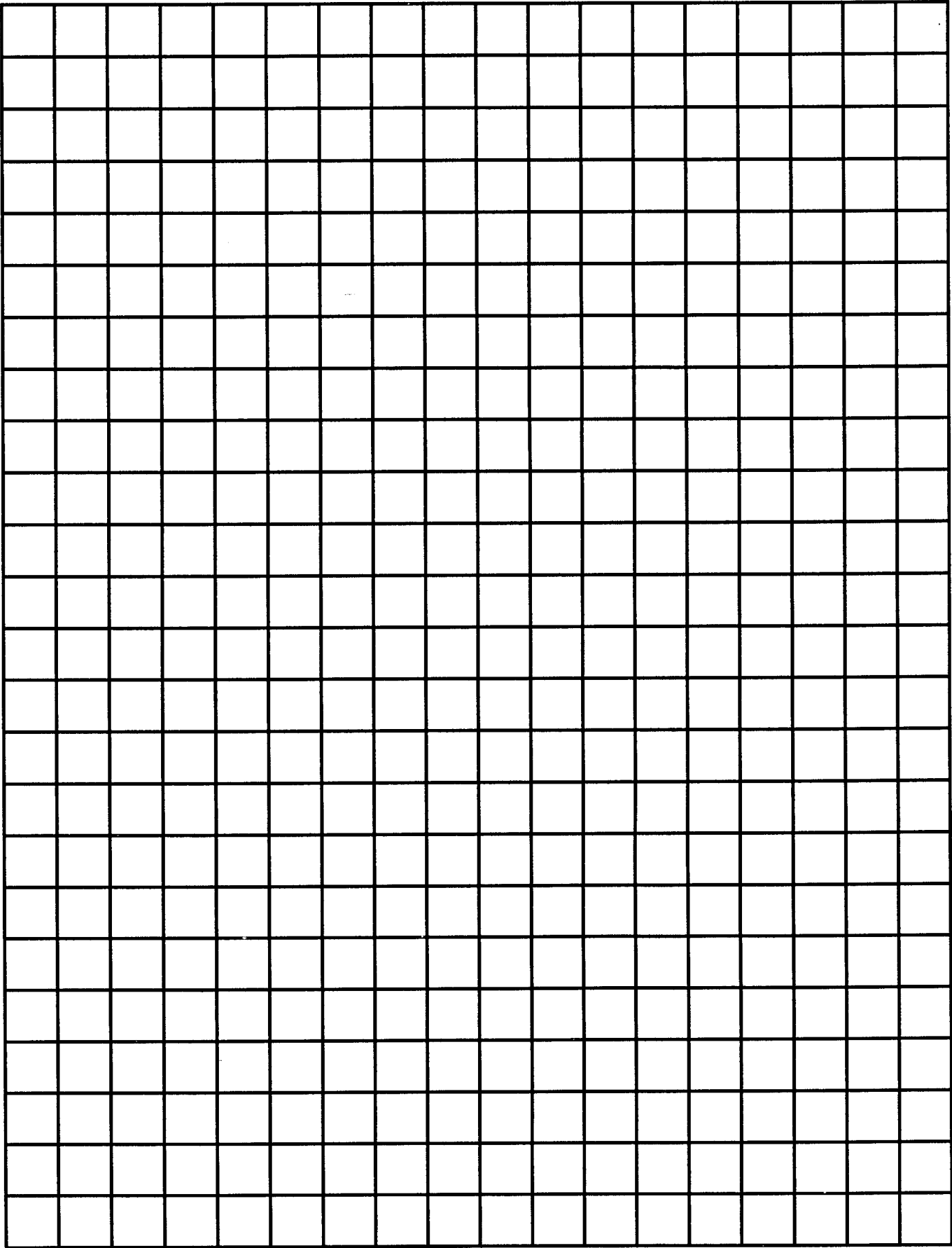


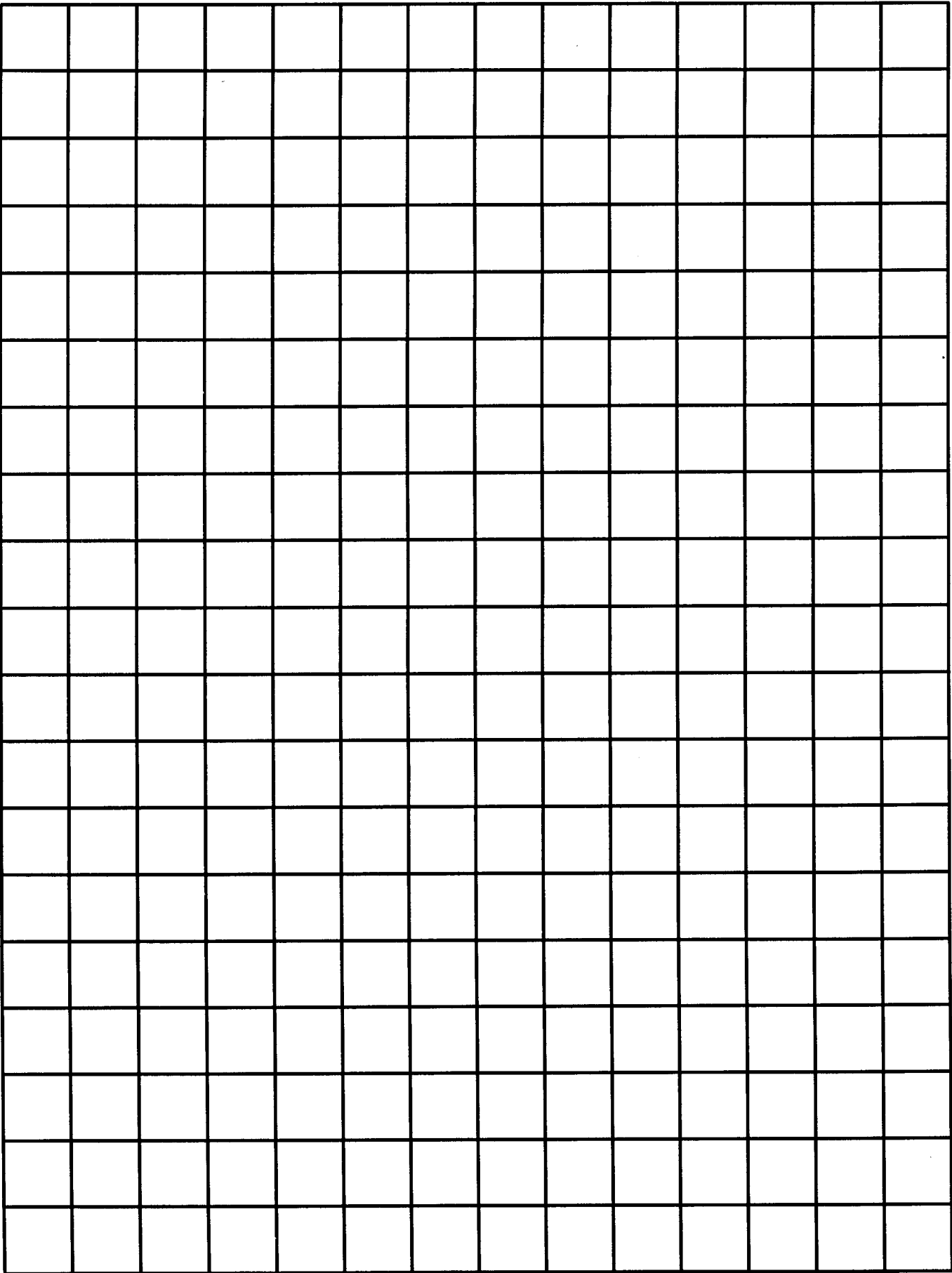


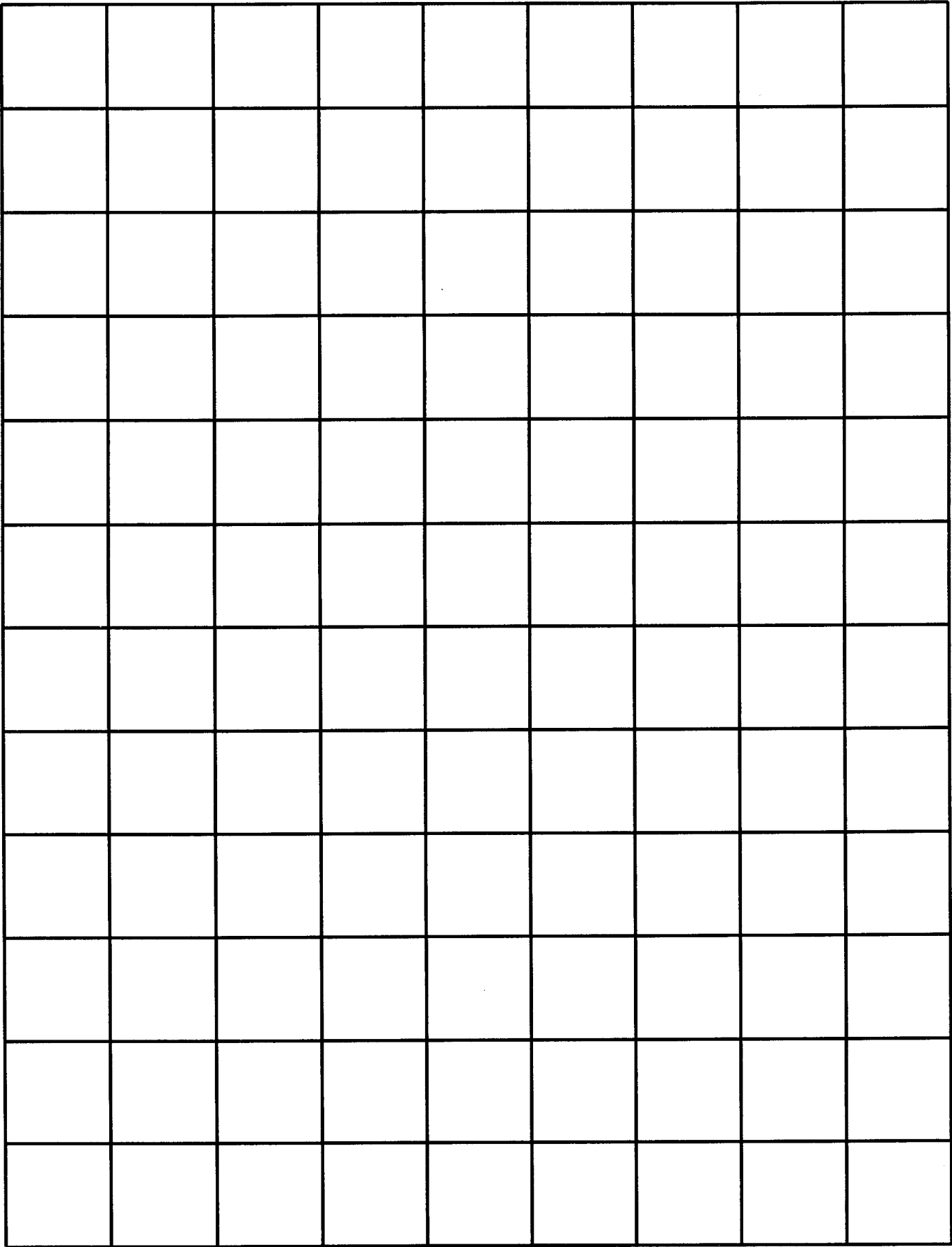


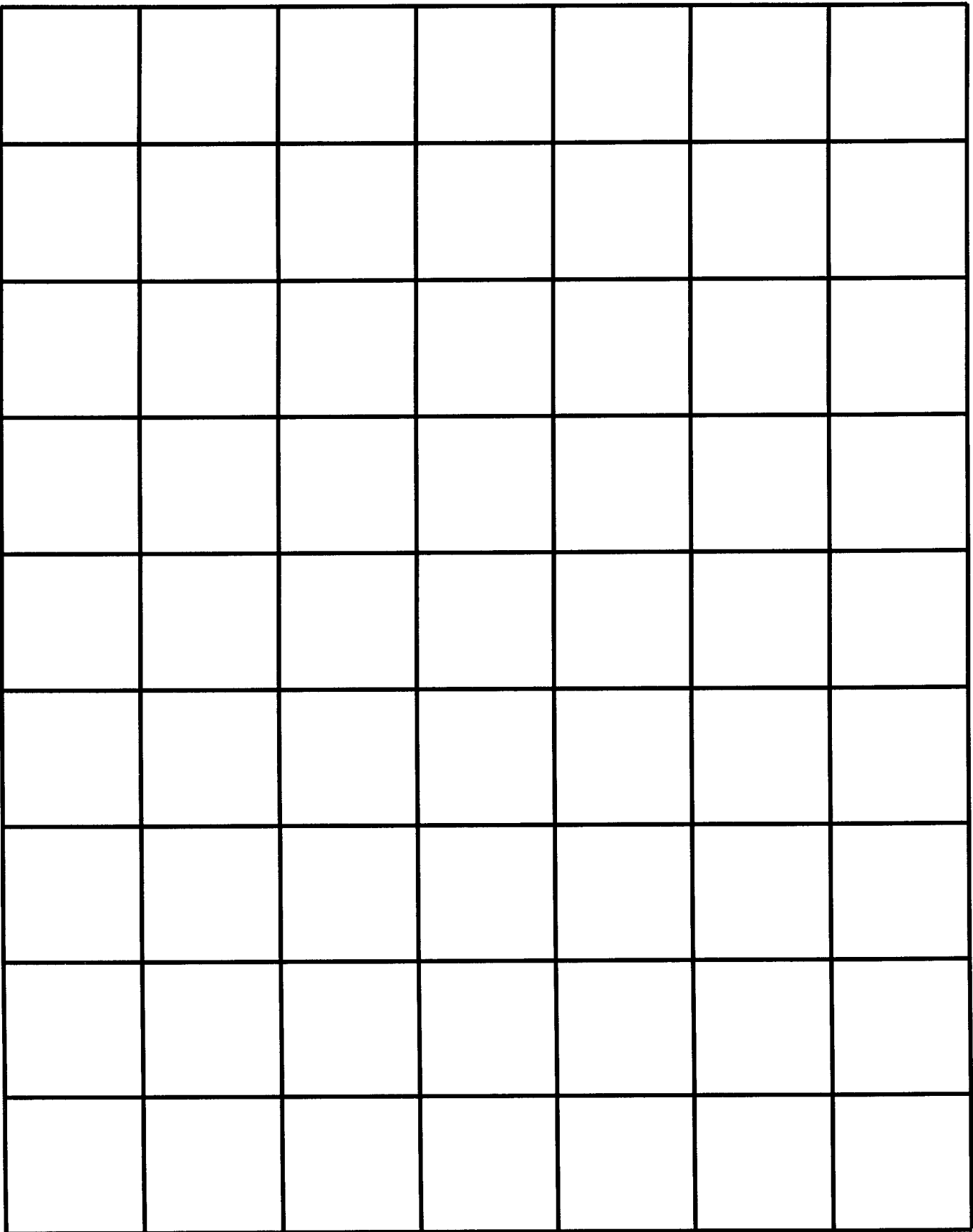


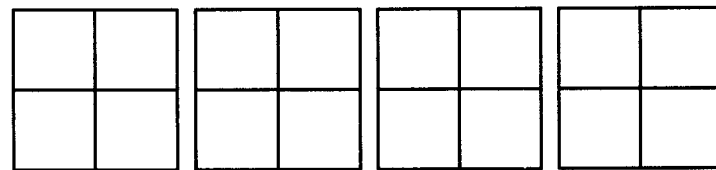
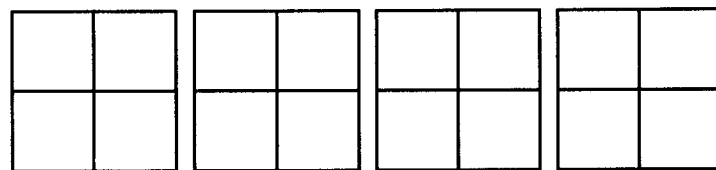
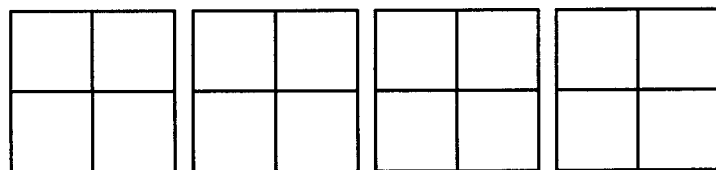
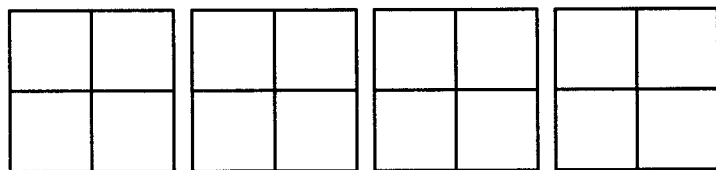
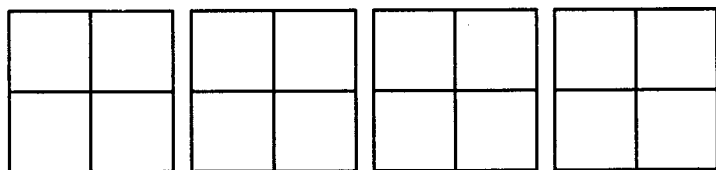
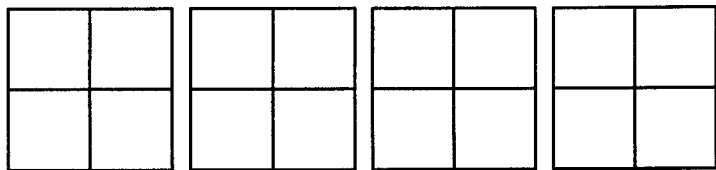
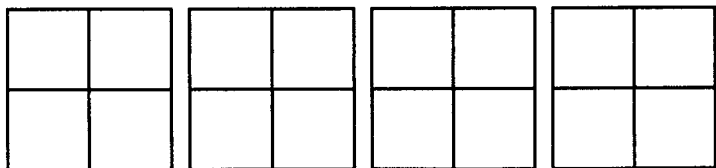


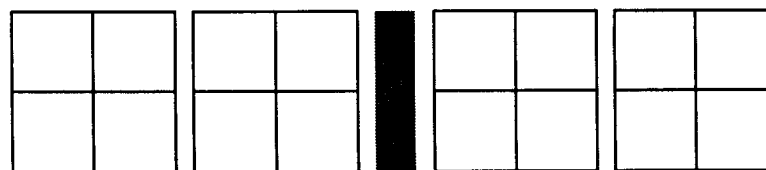
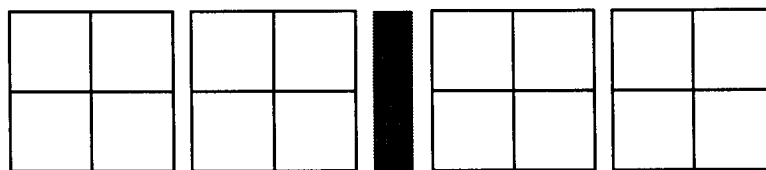
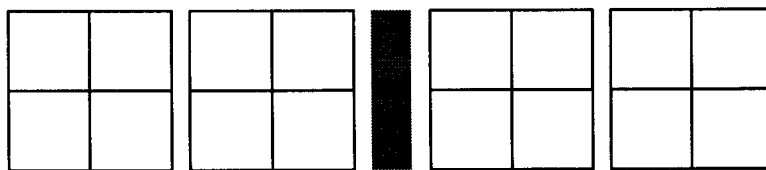
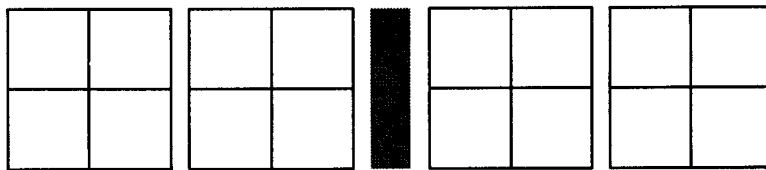
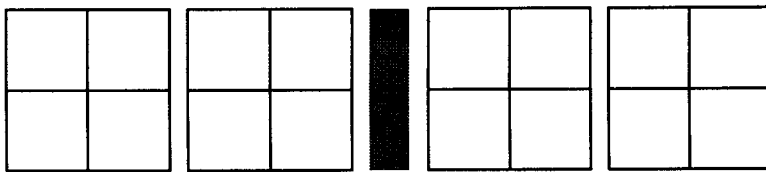
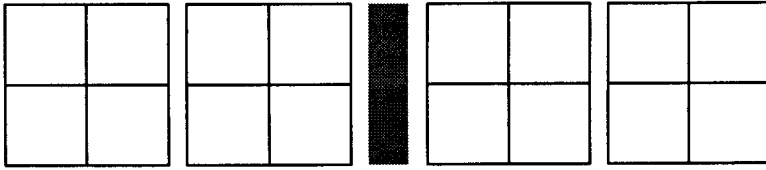
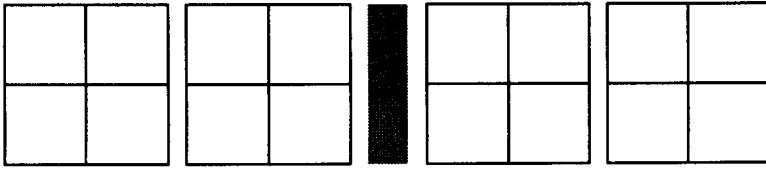












Name _____

Date _____

Lesson Notes

Things I learned in the math lesson today:

An example:

Name _____

Date _____

Lesson Notes

Things I need to remember from the math lesson today:

Definitions:

Name _____

Date _____

Lesson Notes

Make up your own problem and find a solution. Show the steps and work that you need to do.

Name _____

Date _____

Lesson Notes

Explain in your own words what we did in the math lesson today.