DIVISION I FORM 1

Published by PUBLIC SCHOOL PUBLISHING CO. BLOOMINGTON, ILLINOIS Printed in U.S. A.

DIRECTIONS, RECORD SHEET, AND ANSWERS FOR SANGREN-REIDY SURVEY TESTS IN ARITHMETIC DIVISION I — FORM

Instructions for Giving

1. The teacher should go through the test booklet before giving it in order to know the test and to understand what the pupils are doing while taking it.

2. Each pupil should have at least two sharpened pencils: Only pencil is to be used. The teacher should have an extra supply of sharpened pencils on hand in

case of need.

3. Say to the class, "We are going to have a test in arithmetic. I will give you each a copy of the test booklet. Do not look in it or write anything on it until I tell you to." Give each pupil a copy of the test, and tell the pupils to fill in the blanks at the top of the front page of the test (name, date, age, etc.), but

not to read any part of the test.

4. When this is done, say, "You may not be able to work correctly every example in this test, but work Work fast, but as many examples as you can. make sure that everything you do is right. Now open your test folder to Test 1, ADDITION, and fold the next page under so that you will see Test 1 only." (The teacher should illustrate how this is done.) "When I give the signal to begin, start with the first example and work across the page. Work as many examples on this page as you can. If you finish the page before I tell you to stop, do NOT go to the next page but go over your work to make sure that no mistakes have been made. Please remember that all the examples on this page are in ADDITION......Ready, BEGIN!"

5. At the end of 8 MINUTES, say "STOP!"

6. Then say, "Now go to the next page marked Test 2, SUBTRACTION. When I give the signal to begin, start with the first example and work across the page. Work as many examples on this page as you can. If you finish the page before I tell you to stop, do not go to the next page, but go over your work to make sure that no mistakes have been made. Please remember that all the examples on this page are in SUBTRACTION..... Ready, BEGIN!"

7. At the end of 6 MINUTES, say "STOP!"

8. Then say, "Now go to the next page marked Test 3, MULTIPLICATION. When I tell you to begin, start with the first example and work across the page, as before. If you finish this page before time is up, go over your work to make sure no mistakes have been made. Please remember that all the examples on this page are in MULTIPLI-CATION.....Ready, BEGIN!"

9. At the end of 6 MINUTES, say "STOP!"

10. Now say, "Turn your folders completely over to the front page and turn the folders so that you can read Test 4, DIVISION." (The teacher should illustrate how this is done and should make sure that each pupil has Test 4 correctly before him.) "Work across the page, as before. Please remember that all the examples on this page are in DIVISION...... Ready, BEGIN!"

11. At the end of 7 MINUTES, say "STOP!" and

collect all test folders.

Instructions for Scoring

1. Each correct answer counts one point. The pupil's score is the number of examples correct. The highest possible score on Division I, Form 1, is 54 points.

2. The scoring key is given below. It is suggested

that the teacher take an unused copy of the test and mark on it the correct answers in some conspicuous color. Using this as her guide, the pupils' test papers can be scored rapidly and accurately.

Scoring Key

Test 1, Addition	Test 2, Subtraction	Test 3, Multiplication	Test 4, Division
a. 5	a. 1	a. 6	a. 4
b. 11	b. 21	b. 21	b. 8
c. 15	c. 5	c. 88	c. 21
d. 12	d. 11	d. 684	d. 214
e. 69	e. 101	e. 472	e. 14
f. 51	f. 19	f. 60	f. 18
g. 111	g. 424	g. 408	g. 108
h. 1513	h. 79	h. 714	h. 103
i. 14,186	i. 168	i. 4631	i. 22
j. 611	j. 136	j. 1032	j. 2
k. 8/9	k. 1139	k. 15,768	k. 258
1. 1 2/3	1. 5/8	1. 743,247	1. 2982
m. 8 2/3	m. 2/9	m. 32,002,652	
n. 6 7/12	n. 3 7/12	m. 02,002,002	
0 1/12	o. 1 5/24		
	0. 10/21		

INDIVIDUAL RECORD Total			
	Test 1, Addition	Test 2, Subtraction Test 3, Multiplication Test 4, Division of	All SANGREN-REIDY
Pupil's Name Problem—	a b c d e f g h i j k l m n Total	a b c d e f g h i j k l m n o Total a b c d e f g h i j k l m Total a b c d e f g h i j k l Total	ts
Name 11003em			Di
2			
3			
4			City
5			
6			School.
8			
9			
10			
11			
12			
13			Summary of
14			Individual Record
16			
17			Total No. of Total
18			Total No. of Score Pupils Score
19			
20			Test 1 Addition
21			Multip
22			13 13 13
24			12 12
25			11 11
26			10 10
27			9 9
28			8 8
29			6 6
31			5 5
32			4 4
33			3 3
34			2 2
35			1 1
Total right—Each Problem—			0 0
AED AED			Total Total Median
INVOLVED			Test 2
A			Subtraction
PROCEDURE EACH TEST of difficulty			Te Div
L T T T T T T T T T T T T T T T T T T T	ater a fractions	subtrahend an first an first an first an ultiplier anultiplier anultiplier anultiplier anultiplier bient carrying arrying arry	13
OR PROCEI GOF EACH der of diff	c. c.	st Iltiplicat Iltiplicat Inultiplicand Inultiplier I	12 12 12
dit of	LTa Ons	plice and midding tiplice and	11 11
de ler	pt	and and and it is a second with the second and second a	10 10
SE Orc	Su Su	String in the st	9 9
SCI SCI Pe	nila gg	mul	8 8
XEI T	idgi idgi idgi idgi ing sirs	owing	7 7
d ii Est	t bridging the bridging of the carry of the	out bor horrow borrow borrow borrow borrow be barahan and an other and an other borrow and on other borrow and on other borrow and of the borrow and t	6 6
, JUDG CH EX	vithout l vithout l sums te thout cs thout cs ced num ced num	t t bo b b b b b b b b b b b b b b b b b	5 5 4
SKILL, JUDGMENT, OR PROCEDURE IN EACH EXERCISE OF EACH TEST Arranged in the order of difficulty Test 1 — Addition	basic addition-without bridging higher decade without bridging higher decade without bridging a single column-sums ten or greater two columns-without carrying carrying one carrying two double carrying empty spaces and zeros similar fractions no carrying-mixed numbers no carrying-mixed numbers Test 2 — Subtra	hasic subtraction higher decade with borrowing thigher decade with borrowing two digits-without borrowing neglect zeros in minuend and aubtrahend neglect zeros in minuend and aubtrahend neglect zeros in subtrahend only three digits-without borrowing borrowing-in column other than first double borrowing proper fractiona-no borrowing carrying-digits in multiplicand-a in multiplicand acerying-digits in multiplicand and multiplicand zero at end of multiplicand and multiplicand zero within multiplicand and multiplicand zero within multiplicand and multiplicand zero-within the multiplicand and multiplicand zero-within nultiplicand and multiplicand zero-within nultiplicand and multiplicand zero-within multiplicand and multiplicand done digit in divisor with one carrying one digit in divisor with one carrying one digit in divisor with one carrying one digit in divisor with two carrying-two digits in divisor with two carryings-remainder two digits in divisor with two carryings-remainder three digits in divisor with two carryings-remainder three digits in divisor with two carryings-remainder three digits in divisor with two carryings-remainder	3 3
IN IN A	tion ryin ces ction f nu g-m	Tast and	2 2
¥:	basic addition-wi basic addition-wi higher decade wi a single columns- two columns-with carrying one carrying two double carrying empty spaces an similar fractions addition of nume no carrying-mixe no carrying-mixe	dece dece de la ling d	1 1
LIT	asic a asic a asic a asic a sigher single wo colle ouble ouble mpty imilar o carr	sic sic digital digita	0 0
ABILITY,	base base base base base base base base	high high high high high high high high	Total Total
			Median Median

EVEY TESTS IN ARITHMETIC on I, Form 1

tate.....Date....

[eac]	her	Grade
SS I	RECORD	
	Class Total Scores	Number of Pupils
	- 54	
o. of upils	52-53	
	50-51	
ion	48-49	
	46-47	
	44-45	
	42-43	
	40-41	
	38-39	
	36–37	7
	34-35	
	32–33	
	30–31	
	28-29	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	26–27	-
	24-25	N.
	20-21	
1	18-19	
	16–17	
	14-15	
1	12-13	
	10-11	
	8- 9	
	6- 7	
	4- 5	
	2- 3	
	0- 1	
	Total	
	Median	

"TEAR-OFF SHEET" for SANGREN-REIDY SURVEY ARITHMETIC TESTS

Total Each Item

Prob.

d

k 1 m

8

d

g

j k 1 m

b

k 1

8 b

d

f g h i

k

Division I, Form 1

(Please fill out this "tear-off sheet," detach, and mail at once to

the Pu	blic Schoo	ol Publis	shing Co.,	Bloomington, I		
Grade Date City State						Test 1, Addition
Summary of Individual Record		Class Total Scores	Number of Pupils	Test 1		
				54		
Total Score	No. of Pupils	Total Score	No. of Pupils	52-53		7
Test 1	Test 3		50-51			
	dition		iplication	48-49		
13		13		46-47		u
12		12		-		Test 2, Subtraction
11		11		44-45		ıbtra
10		10		42-43		, Si
9		9		40-41		st 2
8		8		38-39		Te
7 6		7		- 00 00		
5		5		36–37	A Property of the Park	
4		4	-	34-35		
3		3		32–33		
2		2				
1		1		30–31		
0		0		28-29		
Total Median		Total		26-27		tion
Wedian		_ Median		24-25		lica
	est 2 traction			22-23		3, Multiplication
15		Test 4		20-21	1	3, 1
14		Di	ivision	And Anna State of		Test 3
13				18–19		F
12		12		16–17		
11		11		14-15		
10		10		12–13	4-4-1	,
9 8		9 8				
7		7		10-11	*	
6		6		8-9		
5	700	5		6- 7		Test 4, Division
4		4		4- 5		Div
3		3		2- 3		4,
1		1				lest
0		0		0- 1		
Total		Total		Total		
Median		Median		Median		

TEAR-OFF SHEET

Andrew .

Please fill out, detach, and mail to the Public School Publishing Company, Bloomington, Illinois, immediately after you have given the test, to aid in determining nation-wide standards.

Directions for Recording

For the convenience of the teacher in analyzing the results from her class, the diagnostic record chart on the inside sheets of this folder has been prepared. Use a separate chart for each grade (yearly or halfyearly) and for each class.

- (a) After the pupils' test blanks have been scored, they should be arranged in alphabetical order. The name of the first child should then be written under "Pupil's Name" on line 1. Suppose now this child had exercises a, b, c, d, and e correct on Test 1, Addition. Check marks should be made in columns a, b, c, d, and e, and the total score, "5," written in the "Total" column for Test 1, Addition. This pupil's results on Tests 2, 3, and 4 should be similarly recorded. Then, add up the totals of each of the separate tests for each pupil and place the result in the column headed "Total of All Tests." Each child's results should be recorded in similar fashion.
- (b) After the pupils' results have been thus entered, the number of marks in each column should be counted, and this total entered at the bottom of the record sheet in the "Total right—each problem" row. Evidently those problems which the fewest pupils had right need most class drill.
- (c) The "Summary of Individual Record" should now be filled in. Suppose the first child made a score of 5 on Test 1, Addition, as shown by his individual record. In the "Summary of Individual Record" make a mark opposite "5" in the column headed "No. of Pupils" for Test 1, Addition. Each child's results should be recorded in similar fashion. The figures in the "No. of Pupils" column should now be added and the sum written at the

bottom of each table in the "Total" space. After this has been done, count up from the bottom to the median, or middle case, and write the number of the space in which this case falls in the space marked "Median." (If there are 35 pupils, the median is the eighteenth score. If the number of pupils is even, the median is the average of the two middle cases; thus if there were 34 cases, the median would be the average of the 17th and 18th scores.)

- (d) The "Class Total Scores" column should now be filled in. Simply count, from the "Total of All Tests" column, giving the total score of each pupil, the number of pupils making each of the indicated scores. For example, if three pupils made a score of either 44 or 45, place a "3" opposite "44-45" in the "Number of Pupils" column. If five pupils made a score of either 42 or 43, place a "5" opposite "42-43" in the "Number of Pupils" column. Do this until all the pupils' scores have been recorded. The figures in the "No. of Pupils" column should now be added and the sum written at the bottom of this table in the "Total" space. After this has been done, count up from the bottom to the median, or middle case, and write the number of this case in the space marked "Median."
- (e) The "Tear-Off" sheet should now be filled in. Simply copy from the Class Record chart the tabulations made for the "Summary of Individual Record" and the "Class Total Scores" column. Get the totals for the column headed "Total Each Item" from the bottom line of the "Individual Record" chart (line marked "Total right-each problem.") Please detach and mail the "Tear-Off" sheet to the Public School Publishing Company, Bloomington, Illinois.

Teacher's Diagnostic Study of Results

The column headed "ABILITY, SKILL, JUDG-MENT, OR PROCEDURE INVOLVED IN EACH EXERCISE OF EACH TEST," states the character of difficulties of each pupil and of the class. Distinctly

new types of difficulty are separated by heavy vertical rules. This diagnostic feature of the record chart is of extreme value to the teacher in discovering individual and class needs and in planning effective remedial instruction.