

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 as many examples as you can. Work fast, but 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 MULTIPLICATION. 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

- a. 5
- b. 11
- c. 15
- d. 12
- e. 69
- f. 51
- g. 111
- h. 1513
- i. 14,186
- j. 611
- k. 8/9
- l. $1\frac{2}{3}$
- m. $8\frac{2}{3}$
- n. $6\frac{7}{12}$

Test 2, Subtraction

- a. 1
- b. 21
- c. 5
- d. 11
- e. 101
- f. 19
- g. 424
- h. 79
- i. 168
- j. 136
- k. 1139
- l. $\frac{5}{8}$
- m. $\frac{2}{9}$
- n. $3\frac{7}{12}$
- o. $1\frac{5}{24}$

Test 3, Multiplication

- a. 6
- b. 21
- c. 88
- d. 684
- e. 472
- f. 60
- g. 408
- h. 714
- i. 4631
- j. 1032
- k. 15,768
- l. 743,247
- m. 32,002,652

Test 4, Division

- a. 4
- b. 8
- c. 21
- d. 214
- e. 14
- f. 18
- g. 108
- h. 103
- i. 22
- j. 2
- k. 258
- l. 2982

(Continued on Page 6)

SURVEY TESTS IN ARITHMETIC
Division I, Form 1

State.....Date.....
 Teacher.....Grade.....

CLASS RECORD

	Class Total Scores	Number of Pupils
	54	
	52-53	
	50-51	
	48-49	
	46-47	
	44-45	
	42-43	
	40-41	
	38-39	
	36-37	
	34-35	
	32-33	
	30-31	
	28-29	
	26-27	
	24-25	
	22-23	
	20-21	
	18-19	
	16-17	
	14-15	
	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
Division I, Form 1

(Please fill out this "tear-off sheet," detach, and mail at once to the Public School Publishing Co., Bloomington, Illinois.)

Grade.....Date.....
 City.....State.....

Summary of Individual Record

Summary of Individual Record				Class Total Scores	Number of Pupils
Total Score	No. of Pupils	Total Score	No. of Pupils		
Test 1 Addition				54	
14		Test 3 Multiplication		52-53	
13		13		50-51	
12		12		48-49	
11		11		46-47	
10		10		44-45	
9		9		42-43	
8		8		40-41	
7		7		38-39	
6		6		36-37	
5		5		34-35	
4		4		32-33	
3		3		30-31	
2		2		28-29	
1		1		26-27	
0		0		24-25	
Total		Total		22-23	
Median		Median		20-21	
Test 2 Subtraction				18-19	
15		Test 4 Division		16-17	
14		12		14-15	
13		11		12-13	
12		10		10-11	
11		9		8-9	
10		8		6-7	
9		7		4-5	
8		6		2-3	
7		5		0-1	
6		4		Total	
5		3		Median	
4		2			
3		1			
2		0			
1		Total			
0		Median			
Total		Total			
Median		Median			

Get these totals from bottom line of Individual Record Chart	Total Each Item	
	Prob. No.	Total Right
Test 1, Addition	a	
	b	
	c	
	d	
	e	
	f	
	g	
	h	
	i	
	j	
	k	
	l	
	m	
n		
Test 2, Subtraction	a	
	b	
	c	
	d	
	e	
	f	
	g	
	h	
	i	
	j	
	k	
	l	
	m	
n		
o		
Test 3, Multiplication	a	
	b	
	c	
	d	
	e	
	f	
	g	
	h	
	i	
	j	
	k	
	l	
	m	
Test 4, Division	a	
	b	
	c	
	d	
	e	
	f	
	g	
	h	
	i	
	j	
	k	
	l	

TEAR-OFF SHEET

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 half-yearly) 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, JUDGMENT, 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.