Educational Activities, Inc.
MICROCOMPUTER PROGRAMS

READ AND SOLVE
MATH PROBLEMS #1

SOFTWARE

EDUCATIONAL ACTIVITIES, INC.
Freeport, N.Y. 11520

READ AND SOLVE
MATH PROBLEMS #1

One-Step Problems

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ABOUT THE AUTHORS

ANN EDSON, M.ED., currently an elementary principal in the Baldwin, New York Public Schools, is also the District Reading Correlator. She has taught on all elementary school levels, and in 1965 was named "Teacher of the Year" by *Grade Teacher* magazine.

A Curriculum Consultant for the New York State Education Department, a Field Consultant in teacher training for St. John's and Hofstra Universities, and the Project Director for an Instructional Resource and Reading Program that was cited for excellence by the Federal Government in their publication, "222 Exemplary Programs," are some of her educational accomplishments. The resource and reading program model became the core of a teacher training program for individualized instruction.

Ann Edson has published many programs in the areas of mathematics, reading, and computer education. She is the author of an educational program that received the Grand Prize at the International Film and TV Festival of New York.

ALLAN A. SCHWARTZ has a B.A. in mathematics and an M.A. in mathematics education. He has taught at the middle school, junior high, and senior high levels. He has also taught in-service courses in mathematics teaching for teachers of grades K-12. He is currently mathematics chairperson in a middle school in Plainview, New York.

He is the author of numerous filmstrips, audio/workbook programs, and microcomputer programs in all areas of mathematics.

Instructions for Operating
Your TRS-80 Disk Programs
Model III

1. Turn on the computer by pressing the rocker switch located under the keyboard at the bottom right of the computer.

2. Insert the diskette into the bottom Drive (Drive O), then press the orange RESET button.

3. The computer will begin loading and will display "ENTER DATE (MM/DD/YY)?". Type the appropriate date and press ENTER.

4. The computer will then display "ENTER TIME (HH:MM:SS)?". Just press ENTER.

5. The **A** will be displayed, then the program will begin.

6. If you wish to stop in the middle of a program, press the orange RESET key and the program will begin again.

7. Pressing the SHIFT and the right arrow (➡) simultaneously will also stop the program, and return you to the introductory remarks.

HELPFUL HINT:

If an error is made before the ENTER key is pressed, it may be erased by pressing the left arrow (⬅) key. Each time this key is pressed, one character will be erased. Press as many times as necessary.

TRS-80 is a registered trademark of the Tandy Corporation.

READ AND SOLVE MATH PROBLEMS #1

OVERVIEW

READ AND SOLVE MATH PROBLEMS #1 is a tutorial and drill program that teaches students the important elements of word problems and conversion of these problems to number problems.

Each lesson is objective-based, thus making it easy to identify the specific skills on which the student is working. The program is success-oriented, so two chances are given for each problem. Correct responses bring immediate and positive reinforcements. Incorrect responses result in specific instructional branches that provide clues to aid the student in solving the problem. The clues are a series of sequential teaching. If the student still misses the answer on a second try, the correct answer is displayed in its proper sequence. The student controls the pace of the program and may study any of the situations for as long as desired.

When each lesson is completed, the student receives a summary of performance. If this student achieves a passing score of at least 70%, an animated graphic reward appears, and the student can go on to other lessons. If the student scores below 70%, the computer will present a message to 'see the teacher.' The teacher can then display the student's score by typing **SCORE** and pressing the RETURN/ENTER key.

LEVELS

The skills covered in this program are presented in a high-interest, controlled vocabulary manner. This allows for use of the program developmentally and correctively for grades 4-6 and remedially for grades 7-12, as well as for special education.

COURSE SUITABILITY

READ AND SOLVE MATH PROBLEMS #1 is designed to be used for reading and mathematics classes for initial teaching, review, and reinforcement. This highly individualized program can be used in classrooms, resource rooms, math labs, and library/media centers. It can be used for students of varying capabilities developmentally, correctively, remedially, and for enrichment or special education.

LEARNING OBJECTIVES

After using **READ AND SOLVE MATH PROBLEMS #1,** the student will be able to:

- identify, locate, and use key words in problem solving.

- write equations and use them to solve addition, subtraction, multiplication, and division problems.

- interpret the operations of problems without numbers.

READ AND SOLVE MATH PROBLEMS #1

RATIONALE

Problem solving is the central element upon which the teaching of mathematics is based. Problem solving helps students develop speed and accuracy. Real-life problems portray the everyday utility of mathematics, and developmental problems show examples of train of thought. These are just some of the ways problems are used as a means to accomplish various goals.

If problems are the core of mathematics, then problem-solving skills must be developed and mastered. One of the essential tools in accomplishing this mastery is to learn to READ — to consider the problem at hand until it is understood.

Once the problem is understood, the student must DECIDE how to proceed by analyzing the problem. **READ AND SOLVE MATH PROBLEMS #1** deals with problem-solving strategies. Once a strategy has been selected to SOLVE the problem, the process of actually solving it follows. This step may involve one or more operations and procedures.

Finally, the ANSWER must be carefully formulated as the problem demands. If the problem asks how many apples, the answer must be presented as three apples, not just the numerical answer.

HOW THE PROGRAM WORKS

When the program begins, the Educational Activities logo appears first. Then the student is asked to type in his/her first and last name.

This information is entered on the Management System (see page 7). The program menu then appears, and the student is directed to select a lesson.
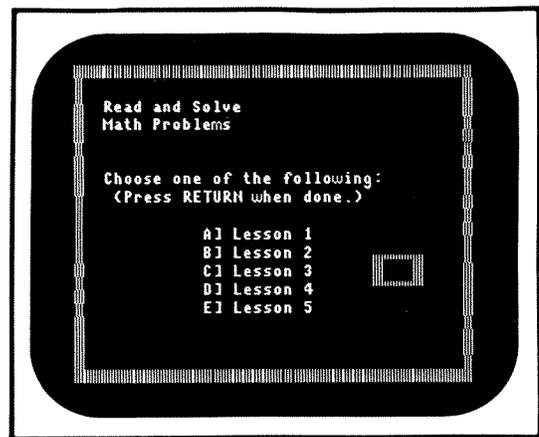
Note that this menu is for Disk 1; a similar menu for Lessons 6 through 10 appears on Disk 2.

The following pages contain sample screens from the program and specific structures of each lesson.

SAMPLE TUTORIAL AND PROBLEMS IN A SUBTRACTION SEQUENCE

```
These words tell you to  subtract.

    less    <==>

            <==>    decreased

    longer  <==>

            <==>    shorter

    left    <==>

    (PRESS SPACE BAR TO CONTINUE)
```

```
Amy works 60 days.  Bob works 17 days.
How many more days does Amy work than
Bob?


Type the left side of the equation.


    [ ]    =
```

```
Remember Ann...

Decreased, fewer, less, tell you to
subtract.  When you compare,
 subtract.

O.k. Ann, let's do some
problems...


    (PRESS SPACE BAR TO CONTINUE)
```

```
Jim has 47 baseball cards and 22
football cards.  How many fewer
football cards does he have?


        Type in the answer.


    47-22=  N         = N
```

```
Peg swam 57 minutes yesterday.  Today
she swam 38 minutes.  How much longer
did she swim yesterday than today?



Do you add or subtract?    [        ]
```

```
Amy works 60 days.  Bob works 17 days.
How many more days does Amy work than
Bob?

    60-17=  N        43 = N


        [ ]

    <Type your answer with its label>
```

READ AND SOLVE MATH PROBLEMS #1

LESSON DESCRIPTIONS

Lesson 1

This lesson introduces the concept of key words that tell you to add. Five problems are presented, each with two parts. The student is asked to find and then type the key word in each problem. Then s/he is asked to determine whether to add or subtract to solve this problem.

Lesson 2

This lesson introduces the concept of key words that tell you to subtract. Seven problems are presented, each with two parts. The student is asked to find and then type the key word in each problem, and then to determine whether to add or subtract to solve this problem.

Lesson 3

This lesson offers instruction on how to write equations. Eight problems are presented, each with various parts. Students learn how to write addition and subtraction equations, and the concept of a variable, such as the letter "N," for example, to stand for the missing answer, is introduced. Students then practice typing equations.

Lesson 4

The seven problems in this lesson each contain various parts. Students are asked to type in the key word, indicate the operation (addition or subtraction), then type the left side of the equation, the answer to this equation, and finally the answer with its label, i.e., "43 days."

Lesson 5

The seven problems in this lesson review and reinforce concepts from Lesson 4. The students are asked to type the operation, the left side of the equation, the answer to the equation, and the answer with its label, for each problem.

Lesson 6

This lesson introduces multiplication as a shorter way of adding equal amounts. The five problems contain various parts. The student is asked to type the key word, to indicate the operation (addition, subtraction, or multiplication), to type the left side of the equation, the answer to the equation, and the answer with its label.

Lesson 7

The seven problems in this lesson review and reinforce concepts from Lesson 6. The students are asked to type the left side of addition, subtraction, or multiplication equations, the answer to the equation, and the answer with its label, for each problem.

SUPPLEMENTARY ACTIVITY MASTERS

Supplementary Activity Masters are included with this program. These activity masters provide basic and supplementary correlation to the lessons. They can be completed before the start of a lesson or after a lesson has been completed. They can also be done another day prior to starting a new lesson. They can also be used to extend the learning session when the student returns to his/her seat or to the regular classroom. Teachers may wish to use these masters for independent skill instruction at other times.

A Diagnostic Pretest and an Evaluative Post Test are also included with the activity masters. The results of these tests enable the teacher to assess student abilities which are necessary to succeed in basic problem solving skills. Using these tests for diagnosis and prescription, the teacher can note the skills that the student has not mastered and can prescribe correlated reinforcement and practice activities.

After the teacher corrects the pretest by using the answer key provided in this guide, s/he can refer to the Individualized Educational Prescription (I.E.P.) Chart (page 6), which matches items on the pretest to lessons on the software. The teacher should pay particular attention to those lessons where a weakness has been indicated by the pretest.

After completing the entire program on software, the post test can be administered. This test parallels the items on the pretest and aids in measuring proficiency. After the teacher corrects the post test by using the answer key provided in this guide, the teacher can refer again to the Individualized Educational Prescription (I.E.P.) Chart for supplemental teaching strategies or the supplementary activity masters especially designed to be utilized for weaker areas.

Lesson 8

This lesson introduces the concept of division as a way of finding more information about one item when given a total of equal items. The seven problems contain various parts. The student is asked to type the left side of the equation, the answer to the equation, and the answer with its label.

Lesson 9

The seven problems in this lesson review and reinforce concepts from Lesson 8. The students are asked to type the left side of addition, subtraction, multiplication, or division equations, the answer to the equation, and the answer with its label, for each problem.

Lesson 10

This lesson presents eight word problems with blank lines in place of numbers. The student is asked to read the problem and type in the operation needed to solve the problem (addition, subtraction, multiplication, or division).

READ AND SOLVE MATH PROBLEMS #1

INDIVIDUALIZED EDUCATIONAL PRESCRIPTION CHART

PRETEST ITEMS	POST TEST ITEMS	SOFTWARE LESSONS	ACTIVITY MASTERS	OBJECTIVES
Page 11A 1, 2	Page 12A 1, 2	1	1	Addition Problems
3, 4	3, 4	2	2	Subtraction or Addition Problems
5, 6, 7	5, 6, 7	3	3	Writing Equations
8, 9	8, 9	10	10	Problems Without Numbers
Page 11B 10, 11	Page 12B 10, 11	4, 5	4, 5	Using Equations to Solve Addition and Subtraction Problems
12, 15	12, 15	6, 7	6, 7	Using Equations to Solve Multiplication, Addition, and Subtraction Problems
13, 14	13, 14	8, 9	8, 9	Using Equations to Solve Division, Addition, Multiplication, and Subtraction Problems

MANAGEMENT SYSTEM

Each diskette contains a record of the students who have attempted and/or successfully completed each lesson on that diskette.

Teachers may view these records by typing in the command **SCORES** when the computer displays, "Please type in your first name and then press RETURN (or ENTER)."

The computer will then ask if you want an individual student's score or the scores for all students.
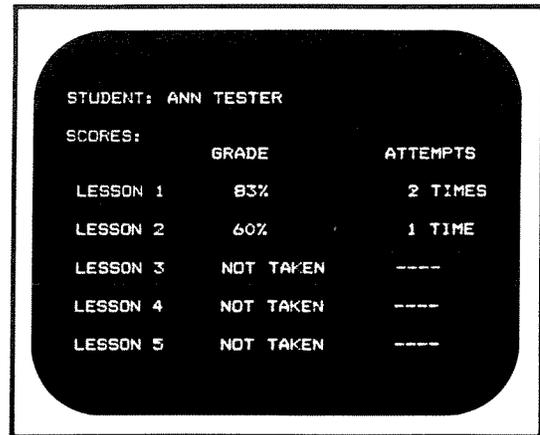
```
STUDENT: ANN TESTER

SCORES:
                GRADE           ATTEMPTS

    LESSON 1     83%            2 TIMES

    LESSON 2     60%            1 TIME

    LESSON 3    NOT TAKEN        ----

    LESSON 4    NOT TAKEN        ----

    LESSON 5    NOT TAKEN        ----
```
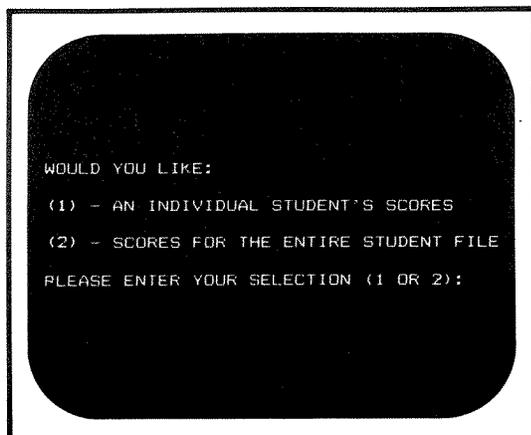
```
WOULD YOU LIKE:

(1) - AN INDIVIDUAL STUDENT'S SCORES

(2) - SCORES FOR THE ENTIRE STUDENT FILE

PLEASE ENTER YOUR SELECTION (1 OR 2):
```

As many as 300 students may be maintained on each disk. If the disk becomes full, a number of students must then be erased from the file.

The command **PURGE,** typed in when the computer asks, "Please type in your first name and then press RETURN (or ENTER)," will give the teacher the option to delete either an individual student file or the entire student file.
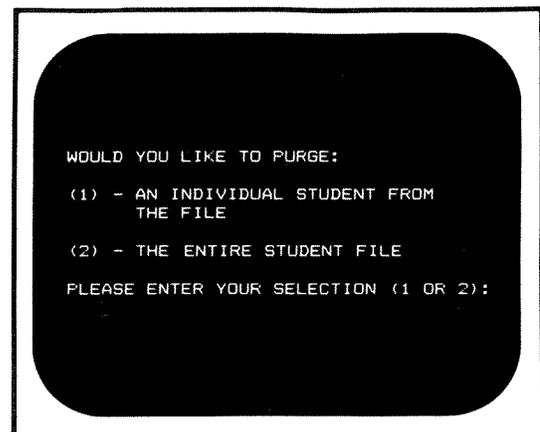
```
WOULD YOU LIKE TO PURGE:

(1) - AN INDIVIDUAL STUDENT FROM
      THE FILE

(2) - THE ENTIRE STUDENT FILE

PLEASE ENTER YOUR SELECTION (1 OR 2):
```

The computer will also give the option of viewing these results on the screen or having them printed out if a printer is available.

Once these options have been decided upon, the following information will be displayed: (1) the name of the student; (2) the lessons on that particular disk; (3) the percentage score attained for each lesson, and (4) the number of times the student attempted each lesson.

A message to the teacher will appear when the disk is full so the teacher can utilize the purging option.

READ AND SOLVE MATH PROBLEMS #1

Additional materials for this subject are also available:

FOR THE COMPUTER

READ AND SOLVE MATH PROBLEMS #2

Grades 4-6, Remedial Secondary

Here is a progressive tutorial and practice program that will teach your students the important elements of word problems and the conversion of written problems to number problems. The programs are highly interactive, provide reinforcement of all concepts, and whenever necessary they branch to reteach. The built-in management system (disk version only) records student progress and will not allow advancement to higher level concepts until a preceding lesson has been mastered.

Programs include:

- **Introduction to Reading and Solving Two-Step Problems**
- **Two-Step Problems with Addition or Subtraction as the First Step**
- **More Practice with Two-Step Problems**
- **Two-Step Problems with Addition, Subtraction, or Multiplication as the First Step**
- **More Practice with Two-Step Problems**
- **Two-Step Problems with Addition, Subtraction, Multiplication, or Division as the First Step**
- **More Practice with Two-Step Problems**
- **Problems Without Numbers**

Included with each program are 8 Reproducible Activity Masters to reinforce concepts and 4 Reproducible Activity Masters for a pre and post test.

DK-320D1 — 2 DISKETTES, 12 Reproducible Activity MASTERS *(specify model)*

NON-COMPUTER

READ AND SOLVE MATH PROBLEMS

Two systematic, individualized cassette-workbook/cassette-ditto units teach reading and solving mathematic problems. Introduces and reinforces the use of key words and selection of correct mathematical operations to solve problems.

AKC/DC 301 — **"Action Vehicle"**
(Levels 2-4, Remedial 5-6)

Includes story problems; facts and questions; finding and writing number sentences +, -, X; more, fewer, less; using tables and graphs; more than one question; more than one step, too many facts, etc.

AKC/DC 319 — **Sports Theme**
(Levels 4-6, Remedial Secondary)

Includes word problems; writing equations; using maps, tables and graphs; problems without numbers; hidden information; too much information; two-step problems, etc.

AKC — *Please specify number*
5 CASSETTES, 10 Activity BOOKS, Guide

DC — *Please specify number*
5 CASSETTES, 74 DITTOS, Guide

Order from:
Educational Activities, Inc.
P.O. Box 392
Freeport, NY 11520
Dept. CS

Send for our FREE catalog

SUPPORT SERVICES

If you need immediate help with any EA microcomputer program, dial our toll free number 800-645-3739 (New York State, Alaska and Hawaii dial 516-223-4666). Ask for our CUSTOMER SERVICE DEPARTMENT.

READ AND SOLVE MATH PROBLEMS

Lesson 1: Addition Problems

Directions: Color in any key word for an addition problem. Some words may be used more than once. Find the hidden picture.
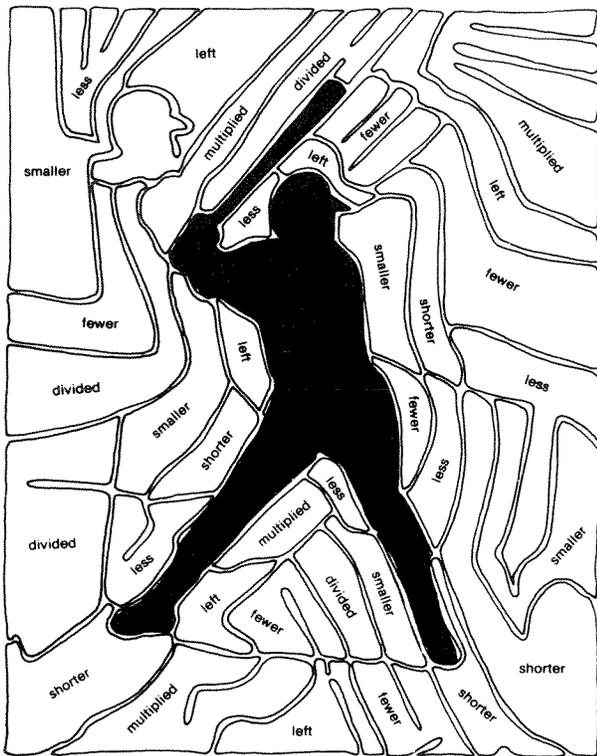
READ AND SOLVE MATH PROBLEMS

Lesson 2: Subtraction or Addition Problems

Riddle: Once is gets out   it's gone forever

    S   E   L   S
1 | L | E | (S) | (S) |

    W   F   E   R   E
2 | F | E | W | (E) | R |

    S   C   R   E   E   D   D   A   E
3 | D | E | (C) | (R) | E | A | S | E | D |

    R   O   M   E
4 | M | O | R | (E) |

    F   T   L   E
5 | L | E | F | (T) |

Once it gets out   it's gone forever

| S | E | C | R | E | T |

READ AND SOLVE MATH PROBLEMS

Lesson 3: Writing Equations

8 fewer than 12 is 4 | 0 | | 1 | 12 – 8 = 4

6 less than 11 is 5   6 + 11 = 17
    | s | | d |

6 increased by 5 is 11   17 – 11 = 6
    | 5 | | 6 |

6 more than 11 is 17   11 – 6 = 5
    | 2 | | a |

6 less than 17 is 11   17 – 6 = 11
    | 4 | | r |

    | 3 | | d |

17 decreased by 11 is 6   6 + 5 = 11

| 1 | 2 | 3 | 4 | 5 | 6 |
| g | u | a | r | d | s |

READ AND SOLVE MATH PROBLEMS

Lesson 4: Using Equations To Solve Addition and Subtraction Problems

Riddle: What insect would make a good outfielder?

1 Hernandez scored 85 runs and Luis scored 37 runs. How many more runs did Hernandez score than Luis?

A | 85 – 37 = n | B | n = 48 | C | 48 runs |

2 Hernandez scored 85 runs and Luis scored 37 runs. How many runs did they score altogether?

A | 85 + 37 = n | B | n = 122 | C | 122 runs |

3 Hernandez scored 85 runs and Luis scored 38 runs. How many fewer runs did Luis score than Hernandez?

A | 85 – 38 = n | B | n = 47 | C | 47 runs |

4 Rita scored 57 runs. If Len scored 18 less runs than Rita, how many did Len score?

A | 57 – 18 = n | B | n = 39 | C | 39 runs |

5 Rita scored 57 runs. If Len scored 18 more runs than Rita, how many did Len score?

A | 57 + 18 = n / 18 + 57 = n | B | n = 75 | C | 75 runs |

What insect would make a good outfielder?

CODE BOX

37	39	47	48	70	73	75	122	123
M	E	D	P	A	T	R	I	S

SECRET WORD
| * | 1 | 2 | 3 | 4 | 5 |
| S | P | I | D | E | R |

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READ AND SOLVE MATH PROBLEMS

Lesson 5: More Addition and Subtraction Problems

RIDDLE: What do you call a rubber pigeon home?

1. Sam's favorite pigeon was entered in 131 races. Betty's favorite pigeon was entered into 8 more races than Sam's. Into how many races was Betty's pigeon entered? (**add**) subtract

2. John spent $138 for material to build a pigeon loft. He saved $40 from his job. His father lent him the rest. How much money did John's father lend him? add (**subtract**)

3. Bob has 17 pigeons and Tony has 42. How many pigeons is this altogether? (**add**) subtract

4. Pat's pigeon loft was 217 centimetres long and 123 centimetres high. How many more centimetres long is it than high? add (**subtract**)

5. Tom started with 68 pigeons. He increased this number by 46. How many pigeons does he have now? (**add**) subtract

6. Sam practiced racing pigeons for 68 hours before the race. Pat only practiced for 39 hours. How many fewer hours did Pat practice than Sam? add (**subtract**)

7. Bob spent $156 so far for his pigeon racing hobby. If he spends $24 more, how much will he have spent in all? (**add**) subtract

8. Betty's pigeons won 39 races and Janie's pigeons won 95. How many more races did Janie's pigeons win than Betty's? add (**subtract**)

What do you call a rubber pigeon home?

	1	2	3	4	5	6	7	8
add	(S)	A	F	(E)	L	I	F	(E)
subtract	M	(O)	(S)	T	(C)	(O)	S	T

READ AND SOLVE MATH PROBLEMS

Lesson 6: Using Equations to Solve Multiplication, Addition, and Subtraction Problems

BLUE TEAM	RED TEAM
1. Harry scored 11 more points than Mary. If Mary scored 20 points, how many points did Harry score? A. $20+11=n$ B. $n=31$ C. 31 pts.	5. Tom scored 4 times as many points as Katie. If Katie scored 10 points, how many points did Tom score? A. $10 \times 4 = n$ B. $n=40$ C. 40 pts.
2. Carla tripled Harry's score. How many points did Carla score? A. $31 \times 3 = n$ B. $n=93$ C. 93 pts.	6. Bob scored 32 fewer points than Tom. How many points did Bob score? A. $40-32=n$ B. $n=8$ C. 8 pts.
3. Ritchie scored 75 fewer points than Carla. How many points did Ritchie score? A. $93-75=n$ B. $n=18$ C. 18 pts.	7. Kim triples Bob's score. How many points did Kim score? A. $8 \times 3 = n$ B. $n=24$ C. 24 pts.
4. Olga doubled Ritchie's score. How many points did Olga score? A. $18 \times 2 = n$ B. $n=36$ C. 36 pts.	8. Irma scored 12 points more than Kim. What was Irma's score? A. $24+12=n$ B. $n=36$ C. 36 pts.

READ AND SOLVE MATH PROBLEMS

Lesson 7: More Multiplication, Addition, and Subtraction Problems

RIDDLE: What vegetable contains something found in a bowling alley?

1. The bowling pins came in boxes of 5 each. There were 16 boxes of pins. How many pins was this in all? add (**multiply**) subtract

2. Amy scored 14 more points than Bonnie who scored 138 points. How many points did Amy score? (**add**) multiply subtract

3. David won 14 out of the 18 games he bowled in the tournament. How many games did he not win? add multiply (**subtract**)

4. Pat bowled 3 games at exactly the same score. Each game bowled was 149 points. What was the total points for these three games? add (**multiply**) subtract

5. Paula paid $13 for a pair of bowling shoes. Bobbie bought the same style shoes on sale for $5 less. How much did Bobbie pay for her shoes? add multiply (**subtract**)

6. If each game bowled cost $2, how much would 14 games cost? add (**multiply**) subtract

7. Joe's average score was 179 points a game last year. This year he increased his average by 11 points. What was his average this year? (**add**) multiply subtract

What vegetable contains something found in a bowling alley?

CODE BOX

	1	2	3	4	5	6	7
Add	A	(P)	A	R	E	S	(H)
Subtract	T	R	(I)	E	(A)	M	E
Multiply	(S)	C	E	(N)	B	(C)	T

READ AND SOLVE MATH PROBLEMS

Lesson 8: Using Equations to Solve Division, Addition, Subtraction and Multiplication Problems

QUESTION: What might a cyclist think of when hearing this proverb? One good turn deserves another.

1. Jerry finished first in 35 races. Sandy finished first in 17 races. How many more races did Jerry win than Sandy?

A. $35-17=n$ B. $n=18$ C. 18 races

2. Some spare tires were packed in cases of 12 tires each. There were 9 cases of tires. How many tires was this in all?

A. $12 \times 9 = n$ B. $n=108$ C. 108 tires

3. Sally has been in 108 races during the last 3 years. If she raced in the same number of races each year, how many races did she race in each year?

A. $108 \div 3 = n$ B. $n=36$ C. 36 races

4. Toby practiced for 7 days before the race. If he practiced for 4 hours each day, how many hours did he practice in all?

A. $7 \times 4 = n$ B. $n=28$ C. 28 hours

CODE BOX:

11	(18)	21	25	(28)	33	(36)	40	52	78	(108)
R	(A)	C	E	(P)	L	(A)	N	Y	C	(L)

SECRET WORDS

A	L	A	P
1	2	3	4

READ AND SOLVE MATH PROBLEMS

Lesson 9: More Division, Addition, Subtraction and Multiplication Problems

RIDDLE: What comes before LES and helps him ride his horses????

1. One day Jenny tossed 37 ringers out of 93 tosses. How many were not ringers?

A. $93 - 37 = n$ B. $56 \ ringers$

2. There were 75 left-handed and 58 right-handed players in a horseshoe pitching contest. How many was this in all?

A. $75 + 58 = n$ B. $133 \ players$

3. If 315 horseshoes were piled in the storage shed in groups of 9, how many groups were there?

A. $315 \div 9 = n$ B. $35 \ players$

4. Mario won the same number of games each day for 8 days. If he won 216 games altogether, how many games did he win each day?

A. $216 \div 8 = n$ B. $27 \ games$

What comes before LES and helps him ride his horses????

1	2	3	4			
S	A	O	O	L	E	S

READ AND SOLVE MATH PROBLEMS

Lesson 10: Problems Without Numbers

1. The Chargers scored ...... points in field goals, ... points in extra points, and ...... points in touchdowns. What was the total number of points scored? **A**

2. There are ...... minutes in a football game. How many minutes are there in each of the halves of the game? **D**

3. ...... pairs of football shoes, each weighing ...... centigrams, were in the locker room. How much did each shoe weigh? **D**

4. Paul weighs ...... kilograms. The equipment he is wearing in the game weighs ...... kilograms. What is the total weight of this player and his equipment? **A**

5. Hans scored ...... points in the first quarter, ... points in the second, ... points in the third, and ...... points in the fourth quarter. How many points did he score in all? **A**

6. Each ticket for a grandstand seat costs ...... There are ...... seats in the grandstand. What is the total cost of all the tickets for the grand-stand seats? **M**

How do you change an "s" into water vapor?

	1	2	3		4			5	6
	A	D	D		A		T	E	A	M

READ AND SOLVE MATH PROBLEMS

Lesson 11: Diagnostic Pretest

Circle the key word or words in each of the following problems

1. Jonas hit 25 home runs. Pete hit 11 more home runs than Jonas. How many more home runs did Pete hit?

2. Gina packed 10 bags of gumdrops and Sue packed 36 bags. How many bags of gum-drops did they pack in all?

3. Bob weighed 58 kilograms in June. After 1 month of jogging, his weight decreased by 8 kilograms. How much did he weigh then?

4. Kareem sunk 6 baskets less than Rita. If Rita sunk 19 baskets, how many baskets did Kareem sink?

Write an equation to use in place of each of the following sentences

5. 9 less than 20 equals 11 $20 - 9 = 11$

6. 5 increased by 7 is 12 $5 + 7 = 12$

7. 6 fewer than 14 equals 8. $14 - 6 = 8$

In each of the following problems think whether to add, subtract, multiply, or divide. In the box after each problem write an A for add, an S for subtract, an M for multiply, or a D for divide

8. George took ...... shots at the basket. He missed ...... shots. How many shots did he sink?   **S**

9. There are ...... basketballs of equal size to be packed for the trip. If ...... basket-balls fit in each box, how many boxes are needed to pack all the basketballs?   **D**

A

READ AND SOLVE MATH PROBLEMS

Lesson 11: Diagnostic Pretest

In Box A following each problem write an equation using the letter n for the missing answer. In Box B solve the equation by writing n = the answer you found for the Box A equation. In Box C write the Box B answer with the correct label.

10. In one season, Diane won 9 speed skating races and lost 35. How many fewer races did she win than lose?

A. $35 - 9 = n$ B. $n = 26$ C. $26 \ races$

11. José and Laura won 6 more dance skating contests than the team of Carl and Amy. If Carl and Amy won 19 dance skating contests, how many did José and Laura win?

A. $19 + 6 = n$ B. $n = 25$ C. $25 \ contests \ won$

12. Bob won 7 games yesterday. Today he won triple the number of games won yesterday. How many games did Bob win today?

A. $7 \times 3 = n$ B. $n = 21$ C. $21 \ games$

13. The team gave each of its members the same number of tickets to sell. If each member was given 6 tickets and there were 78 tickets in all, how many members received tickets?

A. $78 \div 6 = n$ B. $n = 13$ C. $13 \ members$

14. One hundred ten players entered the bowling tournament. These players were placed in groups of 5 each. How many groups were there?

A. $110 \div 5 = n$ B. $n = 22$ C. $22 \ groups$

15. Debbie won 3 games in each of her last 17 matches. How many games did she win in all?

A. $17 \times 3 = n$ B. $n = 51$ C. $51 \ games$

B

READ AND SOLVE MATH PROBLEMS

Lesson 12: Evaluative Post Test

Circle the key word or words in each of the following problems.

1. Bob won 14 gold medals. Sally won 7 (more) gold medals than Bob. How many gold medals did Sally win?

2. José pitched in 31 games and Pam pitched in 19 other games. In how many games did they pitch (in all?)

3. Paula ran 15 kilometers on Monday. On Tuesday she (decreased) this distance by 3 kilometers. How far did she run on Tuesday?

4. David won 7 (less) games than Cara. Cara won 21 games. How many games did David win?

Write an equation to use in place of each of the following sentences.

5. 11 fewer than 19 is 8. $19 - 11 = 8$

6. 6 increased by 5 equals 11. $6 + 5 = 11$

7. 12 less than 14 equals 2. $14 - 12 = 2$

In each of the following problems think whether to add, subtract, multiply, or divide. In the box after each problem write an A for add, an S for subtract, an M for multiply, or a D for divide.

8. There are _____ tennis balls of equal size to be packed. If _____ tennis balls fit in each box, how many boxes are needed to pack all the tennis balls? $\boxed{D}$

9. Sally won _____ games. She played in _____ games. How many games did she not win? $\boxed{S}$

A

READ AND SOLVE MATH PROBLEMS
Lesson 12: Evaluative Post Test

In Box A following each problem write an equation using the letter n for the missing answer. In Box B solve the equation by writing n = the answer you found for the Box A equation. In Box C write the Box B answer with the correct label.

10. In one week Barbara won 8 matches and lost 14. How many less matches did she win than lose?

A. $\boxed{14 - 8 = n}$ B. $\boxed{n = 6}$ C. $\boxed{6 \text{ matches}}$

11. Sally won 9 more medals than Billy. If Billy won 24 medals, how many medals did Sally win?

A. $\boxed{9 + 24 = n}$ B. $\boxed{n = 33}$ C. $\boxed{33 \text{ medals}}$

12. John won 14 games in July. During the same month of July, Jamie won triple the number of games as John. How many games did Jamie win?

A. $\boxed{14 \times 3 = n}$ B. $\boxed{n = 42}$ C. $\boxed{42 \text{ games}}$

13. If 48 basketballs were placed in boxes of 3 basketballs each, how many boxes were used?

A. $\boxed{48 \div 3 = n}$ B. $\boxed{n = 16}$ C. $\boxed{16 \text{ boxes}}$

14. Seventy-two players entered the bowling tournament. If the players were placed in teams of 6, how many teams were there?

A. $\boxed{72 \div 6 = n}$ B. $\boxed{n = 12}$ C. $\boxed{12 \text{ teams}}$

15. Bob jogged 6 kilometres each day for 13 days. How many kilometres did he jog in all?

A. $\boxed{6 \times 13 = n}$ B. $\boxed{n = 78}$ C. $\boxed{78 \text{ kilometres}}$

B

READ AND SOLVE MATH PROBLEMS

Lesson 1: Addition Problems

Directions: Color in any key word for an addition problem. Some words may be used more than once. Find the hidden picture.

Name

READ AND SOLVE MATH PROBLEMS

Lesson 2: Subtraction or Addition Problems

Directions: To find the hidden word which answers the riddle, first unscramble the math words and write them in the boxes below. Then write the circled letters, in order, in the bottom boxes.

Riddle: Once is gets out...it's gone forever.

1. S E L S

2. W F E R E

3. S C R E E D D A E

4. R O M E

5. F T L E

Once it gets out...it's gone forever.

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 3: Writing Equations

Directions: To find the hidden word, match the phrase on the left with the correct equation on the right. The first one has been done. See that the line goes through the g and the 1. Write the letter g in the first box below. Do the rest in the same way.

8 fewer than 12 is 4 •-- [g] ----------- [1] ---•12 − 8 = 4

6 less than 11 is 5 •   • 6 + 11 = 17

[s]   [d]

6 increased by 5 is 11•   •17 − 11 = 6

[5]   [6]

[a]

6 more than 11 is 17 •   [2]   •11 − 6 = 5

6 less than 17 is 11•   [4]   [r]   •17 − 6 = 11

[3]   [u]

17 decreased by 11 is 6 •   •6 + 5 = 11

1	2	3	4	5	6

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 4: Using Equations To Solve Addition and Subtraction Problems

Directions: To find the hidden word which answers the riddle, first do the problems. When you answer problem 1, you will find the same number in the code box. Below it is a letter. Write this letter below the 1 in the Secret Word Box. Do the rest in the same way. When finished, one letter will still be missing. It will be an unused letter still in the code box. Write it in.

Riddle: What insect would make a good outfielder?

1. Hernandez scored 85 runs and Luis scored 37 runs. How many more runs did Hernandez score than Luis?

   A. | $85 \ 37 = n$ | B. | | C. | |

2. Hernandez scored 85 runs and Luis scored 37 runs. How many runs did they score altogether?

   A. | | B. | | C. | |

3. Hernandez scored 85 runs and Luis scored 38 runs. How many fewer runs did Luis score than Hernandez?

   A. | | B. | | C. | |

4. Rita scored 57 runs. If Len scored 18 less runs than Rita, how many did Len score?

   A. | | B. | | C. | |

5. Rita scored 57 runs. If Len scored 18 more runs than Rita, how many did Len score?

   A. | | B. | | C. | |

What insect would make a good outfielder?

CODE BOX

37	39	47	48	70	73	75	122	123
M	E	D	P	A	T	R	I	S

SECRET WORD

*	1	2	3	4	5

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 5: More Addition and Subtraction Problems

Directions: To find the hidden word which answers the riddle, circle whether to add or subtract for each problem. Then in the code box below, circle the letter in the add or subtract row that matches the problem number. Circled letters will form two words.

RIDDLE: What do you call a rubber pigeon home?

1. Sam's favorite pigeon was entered in 131 races. Betty's favorite pigeon was entered into 8 more races than Sam's. Into how many races was Betty's pigeon entered?

add	subtract

2. John spent $138 for material to build a pigeon loft. He saved $40 from his job. His father lent him the rest. How much money did John's father lend him?

add	subtract

3. Bob has 17 pigeons and Tony has 42. How many pigeons is this altogether?

add	subtract

4. Pat's pigeon loft was 217 centimetres long and 123 centimetres high. How many more centimetres long is it than high?

add	subtract

5. Tom started with 68 pigeons. He increased this number by 46, How many pigeons does he have now?

add	subtract

6. Sam practiced racing pigeons for 68 hours before the race. Pat only practiced for 39 hours. How many fewer hours did Pat practice than Sam?

add	subtract

7. Bob spent $156 so far for his pigeon racing hobby. If he spends $24 more, how much will he have spent in all?

add	subtract

8. Betty's pigeons won 39 races and Janie's pigeons won 95. How many more races did Janie's pigeons win than Betty's?

add	subtract

What do you call a rubber pigeon home?

|	1	2	3	4	5	6	7	8
add	S	A	F	E	L	I	F	E
subtract	M	O	S	T	C	O	S	T

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 6: Using Equations to Solve Multiplication, Addition, and Subtraction Problems

Directions: Find who scored the most points. Each problem gives information needed for the next one, in order.
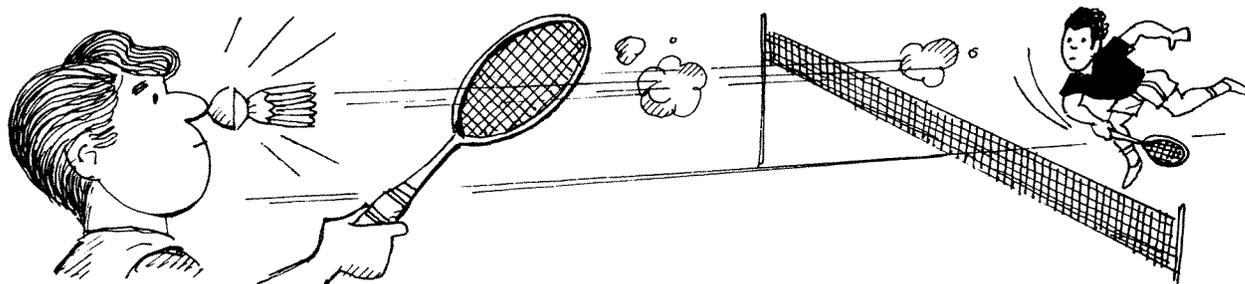
BLUE TEAM

RED TEAM

1. Harry scored 11 more points than Mary. If Mary scored 20 points, how many points did Harry score?

A.

B.   C.

5. Tom scored 4 times as many points as Katie. If Katie scored 10 points, how many points did Tom score?

A.

B.   C.

---

2. Carla tripled Harry's score. How many points did Carla score?

A.

B.   C.

6. Bob scored 32 fewer points than Tom. How many points did Bob score?

A

B.   C.

---

3. Ritchie scored 75 fewer points than Carla. How many points did Ritchie score?

A.

B.   C.

7. Kim triples Bob's score. How many points did Kim score?

A.

B.   C.

---

4. Olga doubled Ritchie's score. How many points did Olga score?

A.

B.   C.

8. Irma scored 12 points more than Kim. What was Irma's score?

A.

B.   C.

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 7: More Multiplication, Addition, and Subtraction Problems

Directions: To find the hidden word which answers the riddle, circle whether to add, multiply, or subtract for each problem. Then in the Code Box, circle the letter in the add, multiply, or subtract row that matches the problem number. Circled letters will form a word.

RIDDLE: What vegetable contains something found in a bowling alley?

1. The bowling pins came in boxes of 5 each. There were 16 boxes of pins. How many pins was this in all?

add	multiply	subtract

2. Amy scored 14 more points than Bonnie who scored 138 points. How many points did Amy score?

add	multiply	subtract

3. David won 14 out of the 18 games he bowled in the tournament. How many games did he not win?

add	multiply	subtract

4. Pat bowled 3 games at exactly the same score. Each game bowled was 149 points. What was the total points for these three games?

add	multiply	subtract

5. Paula paid $13 for a pair of bowling shoes. Bobbie bought the same style shoes on sale for $5 less. How much did Bobbie pay for her shoes?

add	multiply	subtract

6. If each game bowled cost $2, how much would 14 games cost?

add	multiply	subtract

7. Joe's average score was 179 points a game last year. This year he increased his average by 11 points. What was his average this year?

add	multiply	subtract

What vegetable contains something found in a bowling alley?

CODE BOX

	1	2	3	4	5	6	7
Add	A	P	A	R	E	S	H
Subtract	T	R	I	E	A	M	E
Multiply	S	C	E	N	B	C	T

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 8: Using Equations to Solve Division, Addition, Subtraction and Multiplication Problems

Directions: To find the hidden word which answers the riddle, first do the problems. When you answer problem one, you will find the same number in the code box. Below it is a letter. Write this letter above the 1 in the Secret Words Box. Do the rest in the same way.

QUESTION: What might a cyclist think of when hearing this proverb?
One good turn deserves another.

1. Jerry finished first in 35 races. Sandy finished first in 17 races. How many more races did Jerry win than Sandy?

   A. [ ]   B. [ ]   C. [ ]

2. Some spare tires were packed in cases of 12 tires each. There were 9 cases of tires. How many tires was this in all?

   A. [ ]   B. [ ]   C. [ ]

3. Sally has been in 108 races during the last 3 years. If she raced in the same number of races each year, how many races did she race in each year?

   A. [ ]   B. [ ]   C. [ ]

4. Toby practiced for 7 days before the race. If he practiced for 4 hours each day, how many hours did he practice in all?

   A. [ ]   B. [ ]   C. [ ]

CODE BOX:

11	18	21	25	28	33	36	40	52	78	108
R	A	C	E	P	L	A	N	Y	C	L

SECRET WORDS

1	2	3	4

Name _____

READ AND SOLVE MATH PROBLEMS

Lesson 9: More Division, Addition, Subtraction and Multiplication Problems

Directions: To complete the riddle, first do the problems. Use A to write the equation. Use B to write the labeled answer. Then write the first letter of add, subtract, multiply, or divide under the numeral that matches the problem.

RIDDLE: What comes before LES and helps him ride his horses????

1. One day Jenny tossed 37 ringers out of 93 tosses. How many were not ringers?

A. [   ]   B. [   ]

2. There were 75 left-handed and 58 right-handed players in a horseshoe pitching contest. How many was this in all?

A. [   ]   B. [   ]

3. If 315 horseshoes were piled in the storage shed in groups of 9, how many groups were there?

A. [   ]   B. [   ]

4. Mario won the same number of games each day for 8 days. If he won 216 games altogether, how many games did he win each day?

A. [   ]   B. [   ]

What comes before LES and helps him ride his horses????

1	2	3	4			
				L	E	S

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 10: Problems Without Numbers

Directions: To find the answer to the question, write A, S, M, or D for add, subtract, multiply, or divide for each problem. Then match the letter to the problem number in the boxes below. Write in the letter(s).

1. The Chargers scored _____ points in field goals, _____ points in extra points, and _____ points in touchdowns. What was the total number of points scored?

2. There are _____ minutes in a football game. How many minutes are there in each of the halves of the game?

3. _____ pairs of football shoes, each weighing _____ centigrams, were in the locker room. How much did each shoe weigh?

4. Paul weighs _____ kilograms. The equipment he is wearing in the game weighs _____ kilograms. What is the total weight of this player and his equipment?

5. Hans scored _____ points in the first quarter, _____ points in the second, _____ points in the third, and _____ points in the fourth quarter. How many points did he score in all?

6. Each ticket for a grandstand seat costs _____. There are _____ seats in the grandstand. What is the total cost of all the tickets for the grand-stand seats?

How do you change an "s" into water vapor?

1	2	3		4		5	6
					T	E	

Name_____

Lesson 11: Diagnostic Pretest

Circle the key word or words in each of the following problems.

1. Jonas hit 25 home runs. Pete hit 11 more home runs than Jonas. How many more home runs did Pete hit?

2. Gina packed 10 bags of gumdrops and Sue packed 36 bags. How many bags of gumdrops did they pack in all?

3. Bob weighed 58 kilograms in June. After 1 month of jogging, his weight decreased by 8 kilograms. How much did he weigh then?

4. Kareem sunk 6 baskets less than Rita. If Rita sunk 19 baskets, how many baskets did Kareem sink?

Write an equation to use in place of each of the following sentences.

5. 9 less than 20 equals 11.

6. 5 increased by 7 is 12.

7. 6 fewer than 14 equals 8.

In each of the following problems think whether to add, subtract, multiply, or divide. In the box after each problem write an A for add, an S for subtract, an M for multiply, or a D for divide.

8. George took _____ shots at the basket. He missed _____ shots. How many shots did he sink?

9. There are _____ basketballs of equal size to be packed for the trip. If _____ basketballs fit in each box, how many boxes are needed to pack all the basketballs?

Lesson 11: Diagnostic Pretest

In Box A following each problem write an equation using the letter n for the missing answer. In Box B solve the equation by writing n = the answer you found for the Box A equation. In Box C write the Box B answer with the correct label.

10. In one season, Diane won 9 speed skating races and lost 35. How many fewer races did she win than lose?

A. [ ]   B. [ ]   C. [ ]

11. José and Laura won 6 more dance skating contests than the team of Carl and Amy. If Carl and Amy won 19 dance skating contests, how many did José and Laura win?

A. [ ]   B. [ ]   C. [ ]

12. Bob won 7 games yesterday. Today he won triple the number of games won yesterday. How many games did Bob win today?

A. [ ]   B. [ ]   C. [ ]

13. The team gave each of its members the same number of tickets to sell. If each member was given 6 tickets and there were 78 tickets in all, how many members received tickets?

A. [ ]   B. [ ]   C. [ ]

14. One hundred ten players entered the bowling tournament. These players were placed in groups of 5 each. How many groups were there?

A. [ ]   B. [ ]   C. [ ]

15. Debbie won 3 games in each of her last 17 matches. How many games did she win in all?

A. [ ]   B. [ ]   C. [ ]

B

Name_____

READ AND SOLVE MATH PROBLEMS

Lesson 12: Evaluative Post Test

Circle the key word or words in each of the following problems.

1. Bob won 14 gold medals. Sally won 7 more gold medals than Bob. How many gold medals did Sally win?

2. José pitched in 31 games and Pam pitched in 19 other games. In how many games did they pitch in all?

3. Paula ran 15 kilometers on Monday. On Tuesday she decreased this distance by 3 kilometers. How far did she run on Tuesday?

4. David won 7 less games than Cara. Cara won 21 games. How many games did David win?

Write an equation to use in place of each of the following sentences.

5. 11 fewer than 19 is 8.

6. 6 increased by 5 equals 11.

7. 12 less than 14 equals 2.

In each of the following problems think whether to add, subtract, multiply, or divide. In the box after each problem write an A for add, an S for subtract, an M for multiply, or a D for divide.

8. There are _____ tennis balls of equal size to be packed. If _____ tennis balls fit in each box, how many boxes are needed to pack all the tennis balls?

9. Sally won _____ games. She played in _____ games. How many games did she not win?

A

Name_____

In Box A following each problem write an equation using the letter n for the missing answer. In Box B solve the equation by writing n = the answer you found for the Box A equation. In Box C write the Box B answer with the correct label.

10. In one week Barbara won 8 matches and lost 14. How many less matches did she win than lose?

A. [   ]   B. [   ]   C. [   ]

11. Sally won 9 more medals than Billy. If Billy won 24 medals, how many medals did Sally win?

A. [   ]   B. [   ]   C. [   ]

12. John won 14 games in July. During the same month of July, Jamie won triple the number of games as John. How many games did Jamie win?

A. [   ]   B. [   ]   C. [   ]

13. If 48 basketballs were placed in boxes of 3 basketballs each, how many boxes were used?

A. [   ]   B. [   ]   C. [   ]

14. Seventy-two players entered the bowling tournament. If the players were placed in teams of 6, how many teams were there?

A. [   ]   B. [   ]   C. [   ]

15. Bob jogged 6 kilometres each day for 13 days. How many kilometres did he jog in all?

A. [   ]   B. [   ]   C. [   ]

B

Name_____