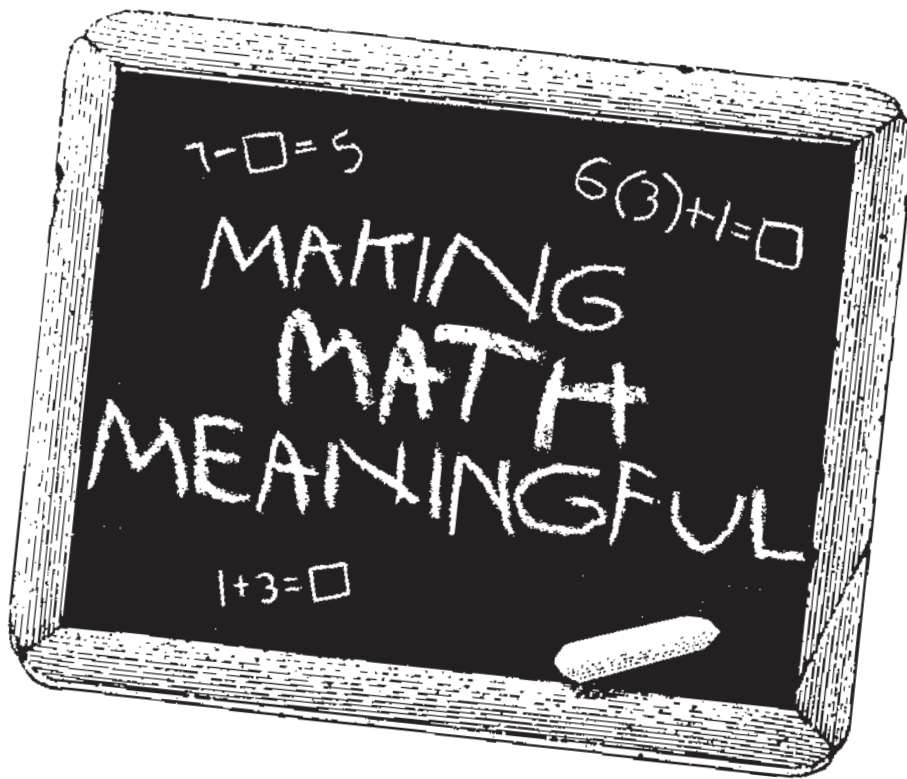


## Level 2 — Parent/Teacher Guide Revised Edition



by David Quine

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# ACTIVITY 5B

## PART-WHOLE RELATIONSHIPS

### MATERIALS

All your family members  
several toys that are made of two parts, for example: a toy truck in which the cab and trailer can be separated  
cubes

### NAMING THE CONCEPT – PART / WHOLE SITUATIONS

### LESSON

#### WHAT I AM TO DO

1. Have all the members in your family sit in a circle.

Write:

F : Family  
P : Parents  
C : Children

$$F = P + C \text{ or}$$

$$F = C + P \text{ or}$$

$$P + C = F \text{ or}$$

$$C + P = F$$

Hold up the pen. Take the cap off of the barrel so that your child can see that it is made up of two parts.

Write:

$$\text{CAP PLUS BARREL} = \text{PEN}$$

$$C + B = P$$

Write:

$$B + C = P$$

$$P = B + C$$

$$P = C + B$$

#### WHAT I AM TO SAY

"NAME THE PEOPLE IN OUR FAMILY. WHAT MAKES UP OUR FAMILY?"

(ANSWER: PARENTS AND CHILDREN)

"WHEN WE ARE TOGETHER, THIS MAKES UP OUR FAMILY."

"I WILL WRITE FOUR MATH SENTENCES TO REPRESENT OUR FAMILY."

"READ THEM TO ME."

"THE PEN IS MADE OF TWO PARTS."

"THIS IS THE CAP AND THIS IS THE BARREL."

"WHEN I JOIN TOGETHER THE CAP AND THE BARREL I HAVE THE WHOLE PEN."

"READ THIS SENTENCE TO ME."

"THE SENTENCE COULD BE WRITTEN SEVERAL DIFFERENT WAYS."

"READ THESE SENTENCES TO ME."

"WHAT DO THEY MEAN?"

"DO THEY ALL DESCRIBE THE CAP, BARREL, AND PEN?"

"NOW I WANT TO CHANGE THE SITUATION JUST A LITTLE."

Start with the whole pen. Hold up the pen and take away the cap.

Write:

PEN TAKE AWAY THE CAP = BARREL

P - C = B

"I WILL BEGIN WITH THE WHOLE PEN AND TAKE AWAY THE CAP. WHAT IS LEFT?"

"DOES THIS SENTENCE REPRESENT WHAT I HAVE JUST DONE WITH THE PEN?"

"READ THE SENTENCE TO ME. WHAT DOES IT MEAN?"

- 
2. Use a toy that separates into two parts (for example, a truck made of a cab and trailer).

Hold up the cab in one hand and the trailer in the other.

Put the cab and trailer together.

Write:

T : Truck

c : cab

v: van

"THIS IS CALLED THE CAB AND THIS IS CALLED THE VAN. TOGETHER THEY ARE THE TRUCK."

"I WANT TO WRITE A SENTENCE FOR THE TRUCK. WHAT PARTS WERE PUT TOGETHER TO MAKE THE TRUCK?"

Write

T = c + v

"WHAT SHOULD I WRITE?"

"WHAT DOES THE SENTENCE MEAN?"

Write:

c =

"WHAT IS THE CAB EQUAL TO?"

- (Have your child take away the trailer from the truck)

"WHAT WOULD YOU HAVE TO DO TO THE TRUCK IN ORDER TO HAVE ONLY THE CAB WHEN THE WHOLE TRUCK IS TOGETHER?"

c = T - v or T - v = c

"WHAT SHOULD I WRITE?"

"WHAT DOES THIS SENTENCE MEAN?"

Put the truck back together.

v =

"THE VAN IS EQUAL TO WHAT? USE THE TRUCK TO TELL ME WHAT TO WRITE. "

v = T - c or T - c = v

"WHAT DO THESE SENTENCES MEAN?"

"HOW ARE THESE SENTENCES ALIKE/DIFFERENT?"

- 
3. Hold up a rod of cubes made of five white cubes and three blue cubes.

"I HAVE ONE ROD. HOW MANY COLORS MAKE UP THE ROD?"

Write:

"WHAT COLORS ARE THEY?"

R : Rod

W: White

B : Blue

R =	"WHAT MAKES UP THE ROD?... WHAT IS THE ROD EQUAL TO?"
	"WHAT SHOULD I WRITE?"
R = W + B, or R = B + W	"WHAT DOES THIS SENTENCE MEAN?"
B =	"I WANT TO WRITE A SENTENCE FOR THE BLUE PART OF THE ROD. WHAT DO I HAVE TO DO IN ORDER TO HAVE THE BLUE CUBES SEPARATE?"
	"WHAT SHOULD I WRITE TO REPRESENT THE BLUE CUBES?"
B = R - W	"WHAT DOES THIS SENTENCE MEAN?"
W =	"WHAT IS THE WHITE PART OF THE ROD EQUAL TO?"
	"WHAT DO I HAVE TO DO TO GET THE WHITE CUBES SEPARATE FROM THE WHOLE ROD?"
W = R - B	"WHAT SHOULD I WRITE TO REPRESENT THE WHITE CUBES?"
	"WHAT DOES THIS SENTENCE MEAN?"

4. Circle the following sentences:
- |           |  |
|-----------|--|
| F = P + C | "OUR FAMILY, THE TRUCK, AND THE ROD ARE MADE OF TWO PARTS. WHEN THE PARTS ARE PUT TOGETHER, THEN WE HAVE THE WHOLE FAMILY, TRUCK, OR ROD." |
| T = v + t |  |
| R = B + W |  |

5. Draw a rectangle around the following sentences:
- |           |   |
|-----------|---|
| P = F - C | "READ THESE SENTENCES."   |
| C = F - P | "HOW ARE THEY ALIKE?"   |
| c = T - t |   |
| t = T - c | "CIRCLE THE LETTER THAT REPRESENTS THE WHOLE."                      |
| B = R - W |   |
| W = R - B | "IF WE TAKE AWAY ONE OF THE PARTS FROM THE WHOLE, WHAT IS LEFT?"    |
|           | "THIS TYPE OF SENTENCE REPRESENTS <b>PART - WHOLE SITUATIONS.</b> " |

6. Give your child nine cubes and a sheet of paper. The cubes should not be joined
- |  |   |
|--|---|
|  | "HOW MANY CUBES IN THE WHOLE SET?"  |
|  | "WRITE THE NUMBER THAT REPRESENTS THE NUMBER OF CUBES IN THE WHOLE GROUP."                                  |
|  | "PUT THE PIECE OF PAPER ON THE FLOOR. STAND OVER THE PAPER AND DROP THE WHOLE SET OF CUBES ONTO THE PAPER." |
|  | "HOW MANY CUBES ARE ON THE PAPER AND HOW MANY CUBES ARE NOT ON THE PAPER?"                                  |
|  | "WE STARTED WITH NINE CUBES. PART OF THE NINE ARE ON THE PAPER AND PART ARE ON THE FLOOR."                  |

"WRITE A SENTENCE ABOUT THE PARTS AND THE WHOLE."

- 
7. Repeat the last step many times using the same number of cubes and different numbers of cubes.

(USE THE SAME TYPE OF STATEMENTS AS LISTED FOR STEP 28)

(Encourage your child to write sentences in which the whole is equal to the sum of the parts and the whole take away one of the parts equals the other part.)

- 
8. Cut some typing paper into a square about 6 inches on each side. Color part of it red and part yellow.

Show your child the prepared square.

"DESCRIBE THIS OBJECT."

Write:

yellow Y  
red R  
square S

"WHAT SENTENCES COULD BE WRITTEN TO SHOW THAT THE TWO PARTS TOGETHER (R AND Y) MAKE THE WHOLE SQUARE?"

(ANSWER:  $R + Y = S$ ,  $S = R + Y$ ,  $Y + R = S$ , AND  $S = Y + R$ )

"THESE SENTENCES TELL THAT THE TWO PARTS TOGETHER ARE EQUAL TO THE WHOLE."

Cut between the red and yellow parts.

"WHAT SENTENCES COULD BE WRITTEN TO SHOW THAT IF YOU REMOVE ONE PART FROM THE WHOLE SQUARE, THE OTHER PART IS LEFT?"

(ANSWER:  $S - R = Y$ ,  $Y = S - R$ ,  $S - Y = R$ , AND  $R = S - Y$ )

"EACH OF THESE SENTENCES INDICATES THAT IF ONE OF THE PARTS IS REMOVED FROM THE WHOLE, THE OTHER PART IS LEFT."

"ALL EIGHT SENTENCES TELL SOMETHING TRUE ABOUT THE PARTS AND THE WHOLE."

"WHAT DO YOU GET WHEN YOU TAKE AWAY ONE OF THE PARTS FROM THE WHOLE?"

(ANSWER: THE OTHER PART)

"WHAT DO YOU GET WHEN YOU ADD THE TWO PARTS?"

(ANSWER: THE WHOLE)

- 
9. Show your child 19 chips: 14 of them red and 5 blue.

"WHAT SENTENCES COULD BE WRITTEN TO SHOW THAT THE RED CHIPS AND THE BLUE CHIPS (THE PARTS) MAKE UP THE WHOLE GROUP OF CHIPS?"

(ANSWER:  $19 = 14 + 5$ ,  $14 + 5 = 19$ ,  $19 = 5 + 14$ , AND  $5 + 14 = 19$ )

"WHAT SENTENCES COULD BE WRITTEN TO SHOW THAT IF YOU REMOVE ONE PART FROM THE WHOLE GROUP OF CHIPS, THEN THE OTHER PART IS LEFT?"

(ANSWER:  $14 = 19 - 5$ ,  $19 - 5 = 14$ ,  $5 = 19 - 14$ ,  $19 - 14 = 5$ )

"ALL EIGHT SENTENCES TELL SOMETHING TRUE ABOUT THE PARTS AND THE WHOLE."

"WHAT DO YOU GET WHEN YOU ADD THE TWO PARTS?"

(ANSWER: THE WHOLE)

"WHAT DO YOU GET WHEN YOU TAKE AWAY ONE OF THE PARTS FROM THE WHOLE?"

(ANSWER: THE OTHER PART)

---

10. Show your child a pair of shoes.

Write:

Pair of shoes: P

right shoe: R

left shoe: L

"WHAT SENTENCES COULD BE WRITTEN TO SHOW THAT THE TWO PARTS TOGETHER (L AND R) MAKE THE PAIR OF SHOES?"

(ANSWER:  $L + R = P$ ,  $P = L + R$ ,  $R + L = P$ , AND  $P = R + L$ )

"WHAT SENTENCES COULD BE WRITTEN TO SHOW THAT IF YOU REMOVE ONE SHOE (ONE PART) FROM THE PAIR OF SHOES (THE WHOLE), THE OTHER PART IS LEFT?"

(ANSWER:  $P - R = L$ ,  $L = P - R$ ,  $P - L = R$ , AND  $R = P - L$ )

"EACH OF THESE SENTENCES INDICATES THAT IF ONE OF THE PARTS IS REMOVED FROM THE WHOLE, THE OTHER PART IS LEFT."

"ALL EIGHT SENTENCES TELL SOMETHING TRUE ABOUT THE PARTS AND THE WHOLE."

"WHAT DO YOU GET WHEN YOU TAKE AWAY ONE OF THE PARTS FROM THE WHOLE?"

(ANSWER: THE OTHER PART)

"WHAT DO YOU GET WHEN YOU ADD THE TWO PARTS?"

---

11. If your child needs more experience for this concept, choose some of the following objects:

Canning Jar = Lid + Glass

Drink = Liquid + Glass

Dinette Set = Table + Chairs

NOTE: any object that is composed of two parts will give your child the necessary experience.

---

12. Give your child Student Pages 8-10.

"FOLLOW THE INSTRUCTIONS FOR EACH PAGE."

NOTE: You will need to give your child assistance as he works through these pages. This is a difficult concept, but worth the effort to understand.

13. Give your child Student Pages 11-12.	<p>"ON STUDENT PAGE 11 CIRCLE ALL THE TRUE SENTENCES."</p> <p>"ON STUDENT PAGE 12 WRITE SENTENCES TO DESCRIBE THE SITUATION."</p>
14. Give your child Student Page 13.	"FOLLOW THE DIRECTIONS ON THE PAGE."
15. Give your child Student Pages 14-15.	<p>"THESE PAGES ASK YOU TO EITHER CHOOSE OR TO WRITE CORRECT SENTENCES."</p> <p>"WHAT DOES THE PROBLEM TELL?"</p> <p>"THE WHOLE IS EQUAL TO THE SUM OF ITS PARTS."</p> <p>"THE WHOLE MINUS ONE OF ITS PARTS IS EQUAL TO THE OTHER PART."</p> <p>"DOES THE PROBLEM TELL THE WHOLE?"</p> <p>DOES THE PROBLEM TELL ONE OR BOTH THE PARTS?"</p>
<p>16. Give your child Student Page 16.</p> <p>Let your child complete the remaining portion of this page. If your child needs more experience, provide similar sheets.</p>	<p>"LOOK AT THE GIVEN SENTENCE: <math>G + A = M</math>."</p> <p>"WHAT ARE THE PARTS?"</p> <p>(ANSWER: G AND A )</p> <p>"WHAT IS THE WHOLE?"</p> <p>(ANSWER: M)</p> <p>"CAN YOU DRAW A PICTURE THAT SHOWS THE PARTS AND THE WHOLE?"</p> <p>"IF YOU TAKE A PART AWAY FROM THE WHOLE, WHAT DO YOU GET?"</p> <p>"CIRCLE THE SENTENCES THAT ARE TRUE ABOUT G, A, AND M."</p> <p>"PROBLEMS TWO, THREE, AND FOUR ARE SIMILAR TO QUESTION NUMBER ONE."</p>

**ANSWER KEY****Student Page 8**

- $S + T = P$  or  $P = S + T$  or  
 $T + S = P$  or  $P = T + S$   
 $P - T = S$  or  $S = P - T$   
 $P - S = T$  or  $T = P - S$
- $K + B = P$  or  $P = K + B$  or  
 $B + K = P$  or  $P = B + K$   
 $P - B = K$  or  $K = P - B$   
 $P - K = B$  or  $B = P - K$
- $4 + 4 = 8$ ;  $8 = 4 + 4$   
 $8 - 4 = 4$ ;  $4 = 8 - 4$
- $4 + 2 = 6$  or  $6 = 4 + 2$  or  
 $2 + 4 = 6$  or  $6 = 2 + 4$   
 $6 - 4 = 2$  or  $2 = 6 - 4$   
 $6 - 2 = 4$  or  $4 = 6 - 2$

**Student Page 9**

- $P = C + B$  or  $C + B = P$   
 $P = B + C$  or  $B + C = P$   
 $P - B = C$  or  $C = P - B$   
 $P - C = B$  or  $B = P - C$
- $C = B + b$  or  $B + b = C$   
 $C = b + B$  or  $b + B = C$   
 $C - B = b$  or  $b = C - B$   
 $C - b = B$  or  $B = C - b$
- $T = B + S$  or  $B + S = T$   
 $T = S + B$  or  $S + B = T$   
 $T - B = S$  or  $S = T - B$   
 $T - S = B$  or  $B = T - S$

**Student Page 10**

- $8 = 5 + 3$  or  $5 + 3 = 8$   
 $8 = 3 + 5$  or  $3 + 5 = 8$   
 $8 - 5 = 3$  or  $8 - 3 = 5$   
 $3 = 8 - 5$  or  $5 = 8 - 3$
- $11 = 9 + 2$  or  $9 + 2 = 11$   
 $11 = 2 + 9$  or  $2 + 9 = 11$   
 $11 - 9 = 2$  or  $2 = 11 - 9$   
 $11 - 2 = 9$  or  $9 = 11 - 2$
- $6 = 5 + 1$  or  $5 + 1 = 6$   
 $6 = 1 + 5$  or  $1 + 5 = 6$

$$6 - 1 = 5 \text{ or } 5 = 6 - 1$$

$$6 - 5 = 1 \text{ or } 1 = 6 - 5$$

- $5 = 2 + 3$  or  $2 + 3 = 5$   
 $5 = 3 + 2$  or  $3 + 2 = 5$   
 $5 - 3 = 2$  or  $2 = 5 - 3$   
 $5 - 2 = 3$  or  $3 = 5 - 2$

**Student Page 11**

- $B + F = T$  and  $F = T - B$
- $R = C - S$ ,  $R + S = C$ ,  
 $C = S + R$
- $B + Y = S$ ,  $S - Y = B$
- $P + B = M$ ;  $P = M - B$
- $P = B + C$ ;  
 $C = P - B$

**Student Page 12**

- $A + G = B$ ;  $G + A = B$ ;  
 $B = A + G$ ;  $B = G + A$   
 $B - A = G$ ;  $G = B - A$ ;  
 $B - G = A$ ;  $A = B - G$
- $C + V = T$ ;  $T = C + V$ ;  
 $V + C = T$ ;  $T = V + C$   
 $T - V = C$ ;  $C = T - V$   
 $T - C = V$ ;  $V = T - C$
- $8 + 9 = 17$ ;  $17 = 8 + 9$ ;  
 $9 + 8 = 17$ ;  $17 = 9 + 8$   
 $17 - 8 = 9$ ;  $9 = 17 - 8$   
 $17 - 9 = 8$ ;  $8 = 17 - 9$

**Student Page 13**

Answers will vary.

**Student Page 14**

- $21 = 14 + \square$   
 $\square = 21 - 14$
- $30 = 18 + \square$   
 $30 - 18 = \square$   
 $30 - \square = 18$
- $17 - 8 = \square$   
 $8 + \square = 17$
- $11 + 24 = \square$   
 $\square - 24 = 11$
- $48 - \square = 22$   
 $\square = 48 - 22$   
 $48 = 22 + \square$
- $\square - 47 = 38$   
 $38 + 47 = \square$

**Student Page 15**

- $57 - 25 = \square$   
 $57 - \square = 25$   
 $\square = 57 - 25$   
 $25 = 57 - \square$   
 $57 = \square + 25$   
 $57 = 25 + \square$   
 $\square + 25 = 57$   
 $25 + \square = 57$
- $39 + 42 = \square$   
 $42 + 39 = \square$   
 $\square = 39 + 42$   
 $\square = 42 + 39$   
 $\square - 39 = 42$   
 $\square - 42 = 39$   
 $42 = \square - 39$   
 $39 = \square - 42$
- $96 - 50 = \square$   
 $\square = 96 - 50$   
 $96 - \square = 50$   
 $50 = 96 - \square$   
 $50 + \square = 96$   
 $96 = 50 + \square$   
 $\square + 50 = 96$   
 $96 = \square + 50$

**Student Page 16**

These sentences are correct.

- whole: M  
 $M = A + G$   
 $M - G = A$   
 $G = M - A$
- whole: B  
 $W + \square = B$   
 $\square + W = B$   
 $\square = B - W$
- whole: 37  
 $37 = 18 + 19$   
 $37 - 18 = 19$   
 $18 = 37 - 19$   
 $19 = 37 - 18$
- whole: 49  
 $\square + 24 = 49$   
 $24 = 49 - \square$   
 $\square = 49 - 24$



# ACTIVITY 5C

## PART-WHOLE RELATIONSHIPS

### MATERIALS

Student Pages 17-20

### NAMING THE CONCEPT – WRITING & SOLVING EQUIVALENT SENTENCES

### LESSON

#### WHAT I AM TO DO

#### WHAT I AM TO SAY

1. Begin the discussion with this word problem...

"CLARA HAS SEVEN BLOUSES. FIVE OF THEM HAVE SHORT SLEEVES AND THE REST ARE LONG."

Write:

"WHAT DO WE KNOW?"

$$5 + \square = 7$$

"HOW MANY BLOUSES DOES SHE HAVE ALL TOGETHER?"

"HOW MANY ARE SHORT SLEEVED?"

"DOES THE STORY TELL US HOW MANY ARE LONG?"

If your child has difficulty understanding this problem, bring out blouses to provide a first-hand experience.

"HOW WOULD YOU SOLVE THIS PROBLEM?"

(ANSWER: 2)

2. Read the following story problem.

"LANE HAS 45 PEBBLES. 28 ARE SMOOTH AND THE REST ARE ROUGH."

"WRITE A MATH SENTENCE TO DESCRIBE THE STORY."

"HOW WOULD YOU SOLVE THIS SENTENCE?"

"WHAT IS KNOWN ABOUT LANE AND HIS PEBBLES?"

"THE NUMBER OF PEBBLES HE HAS ALL TOGETHER IS THE ..."

(ANSWER: WHOLE)

"THE NUMBER OF SMOOTH PEBBLES IS ..."

(ANSWER: ONE PART)

"WHAT IS UNKNOWN?"

(ANSWER: THE NUMBER OF ROUGH PEBBLES)

"WRITE AS MANY TRUE SENTENCES ABOUT THIS STORY AS YOU CAN."

(ANSWER:  
 $45 = 28 + \square$  OR  $28 + \square = 45$   
 $45 = \square + 28$  OR  $\square + 28 = 45$   
 $45 - 28 = \square$  OR  $\square = 45 - 28$   
 $45 - \square = 28$  OR  $28 = 45 - \square$ )

"CIRCLE THE SENTENCES THAT TELL WHAT TO DO WITH THE TWO KNOWN NUMBERS IN ORDER TO FIND THE UNKNOWN NUMBER."

(ANSWER:  $45 - 28 = \square$  OR  $\square = 45 - 28$ )

"WRITE THE PROBLEM VERTICALLY."

(ANSWER: 
$$\begin{array}{r} 45 \\ -28 \\ \hline \end{array}$$
)

"NOW FIND THE SOLUTION."

(ANSWER: 17 )

"HOW COULD YOU VALIDATE (CHECK) TO BE SURE SEVENTEEN IS CORRECT?"

(ANSWER:  $28 + 17 = 45$ )

$$\begin{array}{r} 28 \\ + 17 \\ \hline 45 \end{array}$$

3. Write:

$\square - 32 = 17$

"READ THIS SENTENCE."

(ANSWER: SOMETHING TAKE AWAY THIRTY-TWO IS EQUAL TO SEVENTEEN)

"WHAT IS KNOWN – BOTH PARTS OR THE WHOLE?"

(ANSWER: BOTH PARTS)

"WHAT IS UNKNOWN?"

(ANSWER: THE WHOLE)

"WRITE SOME OTHER SENTENCES ABOUT THESE PARTS AND THE WHOLE."

(ANSWER:  $17 = \square - 32$ )

$32 = \square - 17$  OR  $\square - 17 = 32$

$\square = 32 + 17$  OR  $32 + 17 = \square$

$\square = 17 + 32$  OR  $17 + 32 = \square$ )

"WHICH OF THESE SENTENCES WOULD BE EASIEST TO SOLVE? AND WHY?"

(ANSWER: THE LAST FOUR LISTED ABOVE)

"PICK ONE OF THE SENTENCES AND SOLVE IT."

(ANSWER: EXAMPLE,  $32 + 17 = \square$ )

$$\begin{array}{r} 32 \\ + 17 \\ \hline \end{array}$$

"VALIDATE YOUR SOLUTION

(ANSWER:  $49 - 32 = 17$ )

$$\begin{array}{r} 49 \\ - 32 \\ \hline \end{array}$$

NOTE: At this point you may either make up more problems or proceed to the Student Pages.

---

\*4. Give your child Student Page 17.

"CIRCLE THE NUMBER THAT REPRESENTS THE WHOLE. "

"DECIDE HOW TO SOLVE EACH PROBLEM. UNDERLINE **ADD OR SUBTRACT** TO TELL HOW YOU DECIDED TO SOLVE. "

"THEN GO AHEAD AND SOLVE. MAKE SURE YOUR SOLUTION IS RIGHT BY VALIDATING (CHECKING) IT."

---

\*5. Give your child Student Page 18.

"READ THE MATH SENTENCE."

"CIRCLE THE VERTICAL SENTENCE THAT SHOWS HOW TO SOLVE IT."

"THEN SOLVE IT."

---

\*6. Give your child Student Page 19.

"THESE SENTENCES HAVE BEEN SOLVED. CIRCLE THE SOLUTIONS THAT ARE RIGHT. CORRECT THE ONES THAT ARE NOT."

---

\*7. Give your child Student Page 20.

"SOLVE THE MATH SENTENCES."

"VALIDATE SOME OF YOUR SOLUTIONS."

\*NOTE: AS YOUR CHILD WORKS THROUGH THE STUDENT PAGES ASK HIM QUESTIONS...

"WHAT IS KNOWN? ...UNKNOWN?"

"HOW CAN THE SENTENCE BE CHANGED SO THAT IT CAN BE SOLVED?"

"VALIDATE THE SOLUTION."

## ANSWER KEY

### Student Page 17

Math sentences (equations) may be written in ways other than listed.

1. subtract  
 $55 - 37 = 18$
2. subtract  
 $61 - 45 = 16$
3. subtract  
 $51 - 29 = 22$
4. add  
 $20 + 14 = 34$
5. subtract  
 $74 - 28 = 46$
6. add  
 $13 + 43 = 56$
7. add  
 $17 + 24 = 41$
8. subtract  
 $84 - 52 = 32$

### Student Page 18

1. b - 40
2. c - 24
3. b - 64
4. a - 29
5. c - 96
6. b - 23
7. c - 18

### Student Page 19

1. Correct
2. 44
3. Correct
4. 5
5. 72
6. cannot be solved
7. 54
8. Correct

### Student Page 20

1. subtract - 32
2. subtract - 38
3. subtract - 10
4. subtract - 44
5. add - 21
6. subtract - 35
7. subtract - 33
8. subtract - 78
9. subtract - 45
10. subtract - 41

# ACTIVITY 5D

## PART-WHOLE RELATIONSHIPS

### MATERIALS

Student Pages 21-24

### APPLYING THE CONCEPT – WRITING & SOLVING EQUIVALENT SENTENCES

### LESSON

#### WHAT I AM TO DO

#### WHAT I AM TO SAY

This activity provides additional practice in solving open sentences.

Provide as much practice as necessary for your child.

- |   |  |
|---|--|
| 1. Give your child Student Pages 21-23. | "SOLVE THESE SENTENCES."                   |
| 2. Give your child Student Page 24.     | "READ EACH STORY AND SOLVE EACH SENTENCE." |

### ANSWER KEY

#### Student Page 21

- 27
- 22
- 76
- 32
- 99
- 18
- 26
- 15
- 66
- 84
- 62
- 46
- 45
- 35
- 12
- 51
- 77
- 6
- 83
- 38

#### Student Page 22

- 7
- 21
- 46
- 32
- 65
- 23
- 72
- 51
- 11
- 84
- 89
- 56
- 25
- 77
- 35
- 16
- 43
- 74
- 68
- 14

#### Student Page 23

- 40 billion
- 9
- 73
- 39

#### Student Page 24

- 32
- 58
- 66
- 53
- 54
- 46
- 63
- 51
- 59
- 64
- 32
- 62
- 44
- 47
- 41
- 60
- 40
- 55
- 65
- 56

# ACTIVITY 5E

## PART-WHOLE RELATIONSHIPS

### MATERIALS

Student Pages 25-28

### APPLYING THE CONCEPT – WRITING & SOLVING EQUIVALENT SENTENCES

### LESSON

#### WHAT I AM TO DO

1. Give your child Student Pages 25-28.

#### WHAT I AM TO SAY

"FOR EACH PROBLEM WRITE AN OPEN SENTENCE, SOLVE IT, AND VALIDATE IT."

#### ANSWER KEY

##### Student Page 25

Math sentences (equations) may be written in ways other than listed.

1.  $45 - 28 = \square$ ; 17
2.  $35 + 37 = \square$ ; 72
3.  $46 + 7 = \square$ ; 53
4.  $53 - 36 = \square$ ; 17
5.  $45 - 17 = \square$ ; 28

##### Student Page 26

Math sentences (equations) may be written in ways other than listed.

1.  $56 + 35 = \square$ ; 91
2.  $38 - 9 = \square$ ; 29
3.  $98 - 39 = \square$ ; 59
4.  $53 - 25 = \square$ ; 28
5.  $51 - 35 = \square$ ; 16

##### Student Page 27

Math sentences (equations) may be written in ways other than listed.

1.  $66 - 49 = \square$ ; 17
2.  $95 - 27 = \square$ ; 68
3.  $89 - 56 = \square$ ; 33
4.  $66 - 38 = \square$ ; 28
5.  $32 - 24 = \square$ ; 8

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Math sentences (equations) may be written in ways other than listed.

- 35¢; 78¢; 59¢; 96¢
1.  $96 - 78 = \square$ ; 18
  2.  $19 + 7 = \square$ ; 26
  3.  $59 - 35 = \square$ ; 24
  4.  $59 - 48 = \square$ ; 11