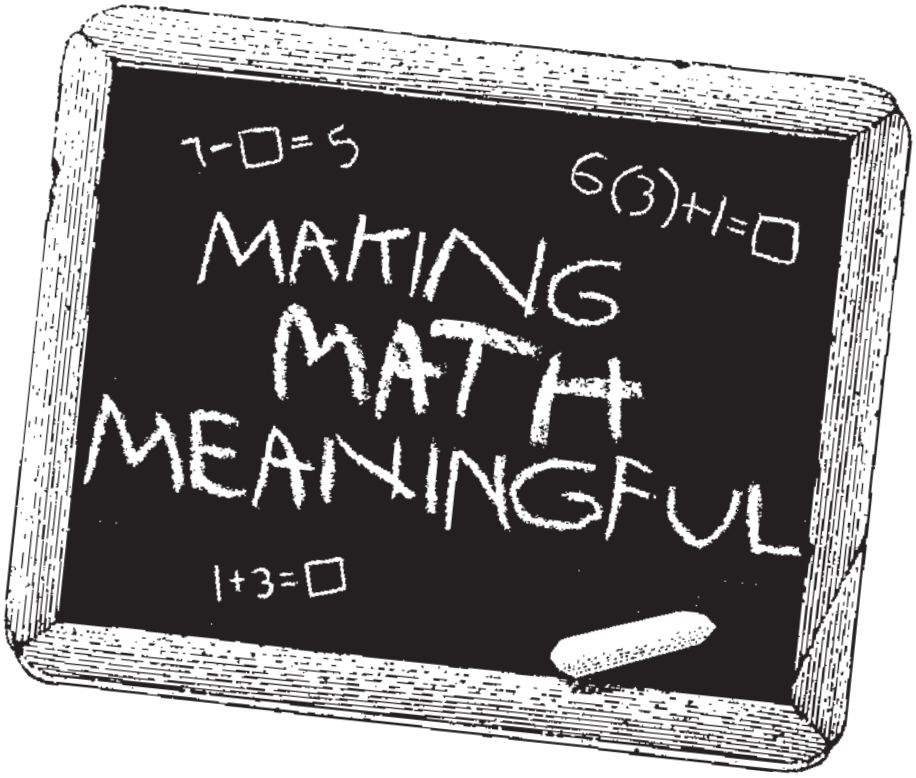
Level 2 — Student Book
Revised Edition



by David Quine

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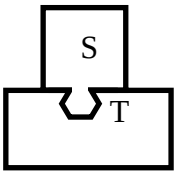
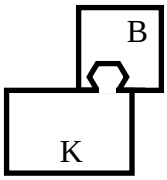
Write three sentences about each picture.
A sentence about what the puzzle is equal to.
A sentence about what one part of the puzzle is equal to.
A sentence about what the other part of the puzzle is equal to.

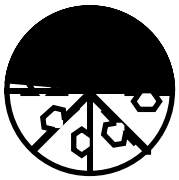
1. This is a puzzle (P). Write sentences using letters.



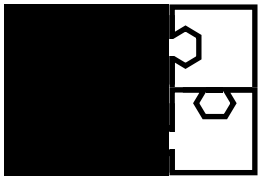
2. Here is one more puzzle (P). Write sentences using letters.



3. Write sentences using numbers.

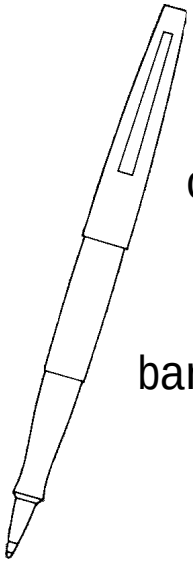


4. Write sentences using numbers.

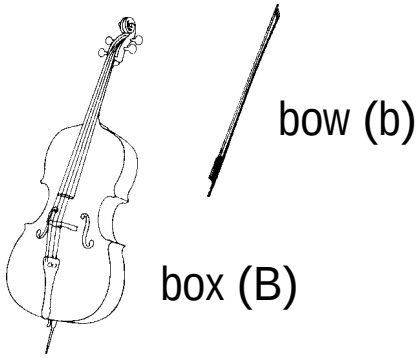


Write math sentences for each picture.

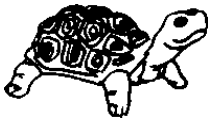
1. Write sentences about this pen (P).



2. Write sentences about this cello (C).



3. Write sentences about the turtle.



1. Gwen made 8 paper planes.
   5 can fly a little.
   3 fall right down to the floor.

2. Herb made 11 masks.
   9 look happy.
   2 look sad.

3. Shannon made 6 paper flowers.
   5 are blue.
   1 is yellow.

4. Trina made 5 books.
   2 were about turtles.
   3 were about the stars.

Draw a picture to show each story and then write a number sentence about each picture.

Circle the true sentences.

1. There were some train cars (T) on the siding. Some were boxcars (B) and the rest were flatcars (F).

B + F = T F = T - B

B - T = F T = B - F

2. The eight o'clock train had many cars (C). Part of the cars were stock cars (S). The rest were refrigerator cars (R).

R = C - S S - R = C

R + S = C C = S + R

3. Sally's sailboat has a pretty sail (S). Part of it is blue (B) and the rest is yellow (Y). Color the sail.

S + B = Y B = Y + S

B - Y = S B + Y = S

B = Y - S S - Y = B

4. A refrigerator car was loaded with meat (M). Part of the meat was beef (B). The rest was pork (P).

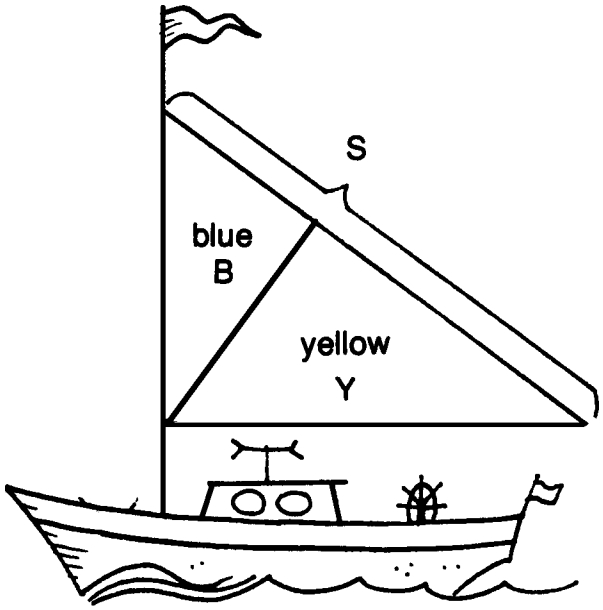
P = M + B P + B = M

B - P = M P = M - B

5. There were some people (P) traveling in the caboose. Part of the people were conductors (C). The rest were brakemen (B).

B - C = P C = P - B

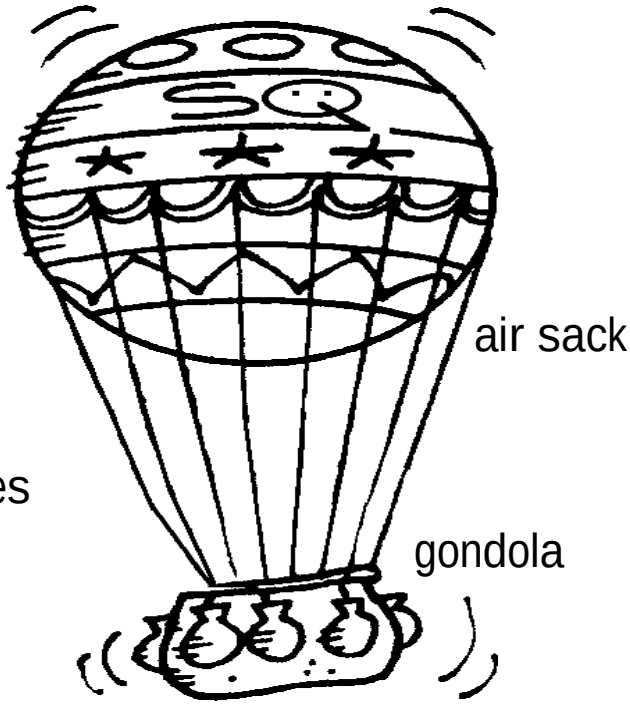
C + P = B P = B + C



STUDENT PAGE 11 ACTIVITY 5B

1. People sometimes go sight-seeing in balloons. A balloon (B) has two parts: the air sack (A) and the gondola (G), which is a kind of basket.

   Write at least two + sentences and two - sentences about a balloon and its parts.



+ sentences - sentences

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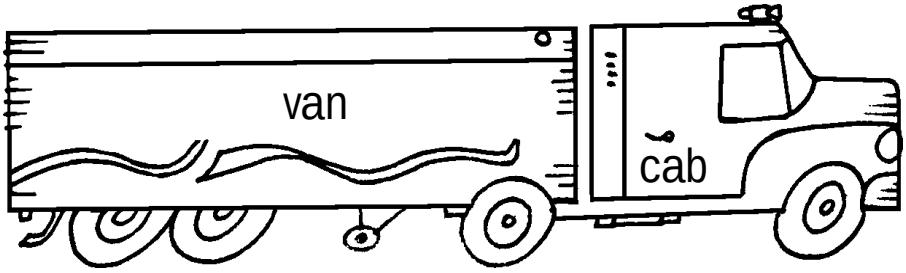
2. Sam's truck (T) has two parts: the cab (C) and the van (V).



   Write as many sentences about the truck (T) and its parts (C and V) as you can.

+ sentences - sentences

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3. Write as many sentences about 8, 9, and 17 as you can.

+ sentences - sentences

NUMBER OF PLAYERS — Two

HOW LONG TO PLAY

Decide on a certain amount of time (like 5 minutes)
or … Play until a certain musical selection is finished.
or … Play until one of you has 8 correct sentences.

GAME RULES:

1. Each of you picks one number between 0 and 99.
2. Find the sum of your two numbers — or
   Find the difference between your two numbers.
3. The sum or the difference is your third number.
4. Each of you writes addition sentences and subtraction sentences about the three numbers.
5. See who can write the most correct sentences about the three numbers.

FOR EXAMPLE:

If the two numbers picked are 5 and 7.

The sum is 12.

Sentences that you could write are:

5 + 7 = 12 or 12 = 5 + 7
7 + 5 = 12 or 7 + 5 = 12
12 - 7 = 5 or 5 = 12 - 7
12 - 5 = 7 or 7 = 12 - 5

Circle all the true sentences about each story.

1 .A cattle truck was carrying 21 cattle; 14 of them were old and the rest (□) were young.

21=14+ □ □ -14 = 21

14+21 = □ □ =21 -14

2.A moving van truck carried 30 pieces of furniture. In the load were 18 desks; the rest (□) were chairs.

18 - 30 = □ 30-18 = □

30 = 18 + □ 30 - □ = 18

3. A truck was hauling 17 new cars; 8 of them were blue and the rest (□) were green.

17-8= □ 8+ □ =17

□ +17=8 8= □ -17

4. A chicken farm truck sent some crates of chickens (□) to market. In the truckload were 24 crates of hens and 11 crates of roosters.

□ + 24 =11 □ = 24 -11

11 + 24 = □ □ - 24 =11

5. The tire company truck carried 48 tires. Some (□) were worn out. The 22 other tires were brand new.

48 - □ = 22 □ = 48 -22

48 + 22 = □ 48 = 22+ □

6. The milk company truck was carrying some cases (□) of milk. 38 cases were whole milk and the other 47 cases were chocolate.

□ - 47 = 38 38 + 47= □

□ + 47 =38 □ = 47 -38

STUDENT PAGE 14 ACTIVITY 5B

For each problem write
as many sentences with a □ as you can.
You can solve the sentences if you want to.

1. On the noon flight from Chicago to Tampa there were 57 passengers. There were 25 women and the rest were men. How many men were there?

2. On Tuesday Pilot Sanchez's airplane served many meals. Of the meals 39 were lunches and 42 were dinners. How many meals were served?

3. On the night flight from Chicago to San Francisco, there were 96 passengers. There were 50 adults, and the rest were children. How many children were there?

Circle the correct sentences.

1. If you know the sentence G + A = M is true, which of these other sentences are true about G, A, and M?

M = A + G	G + M = A	M = G - A
M - G = A	G = M - A	G - M = A

2. If you know the sentence B - ☐ = W is true, which of these other sentences are true about B, ☐, and W?

☐ - B = W	W + ☐ = B	☐ +W = B
☐ = W - B	W +B = ☐	☐ = B - W

3. If you know the sentence 37 - 19 = 18 is true, which of these other sentences are true about 37, 19, and 18?

37 = 18 + 19	19 +37 = 18	19 = 18 - 37
37 - 18 = 19	18 = 37 - 19	19 = 37 - 18

4. If you know the sentence 49 = 24 + ☐ is true, which of these other sentences are true about 49, 24, and A?

☐ - 49 = 24	☐ + 24 = 49	☐ = 49 - 24
24 + 49 = ☐	24 = 49 - ☐	49 + ☐ = 24

STUDENT PAGE 16 ACTIVITY 5B

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.

1. Example:

37 + ☐ = (55) add subtract

2.

45 = 61 - ☐ add subtract

3.

51 = ☐ + 29 add subtract

4.

20 = ☐ - 14 add subtract

5.

74 = ☐ + 28 add subtract

6.

☐ - 13 = 43 add subtract

7.

17 + 24 = ☐ add subtract

8.

52 + ☐ = 84 add subtract

STUDENT PAGE 17 ACTIVITY 5C

Read each math sentence. Circle the correct way to solve. Then solve it. It helps to make up a story for the problem.

1. $86 - \square = 46$

Dr. Tim has 86 patients. 46 are boys and the rest are girls. What is known about Dr. Tim and his patients? What is unknown?

a. $46 + 86$ b. $86 - 46$ c. $132 - 86$

2. $\square + 51 = 75$

a. $75 + 51$ b. $126 - 75$ c. $75 - 51$

3. $\square - 32 = 32$

a. $64 + 32$ b. $32 + 32$ c. $32 - 32$

4. $16 = \square - 13$

a. $16 + 13$ b. $29 - 16$ c. $16 - 13$

5. $\square = 35 + 61$

a. $61 - 35$ b. $96 - 35$ c. $61 + 35$

6. $\square = 83 - 60$

a. $60 + 83$ b. $83 - 60$ c. $60 - 83$

7. $40 + \square = 58$

a. $40 + 58$ b. $98 + 40$ c. $58 - 40$

STUDENT PAGE 18 ACTIVITY 5C

Our friend, Jayne, finished her problems. Would you please check to see how well she did? Fix any mistakes you find.
Only the number that is in the box can be changed.

1. [70] - 41 = 29

2. 22 = 66 - [88]

3. [61] - 34 = 27

4. 41 = [77] + 36

5. 87 = [73] + 15

6. [??] + 19 = 13

7. 92 = 38 + [44]

8. 76 - 37 = [39]

STUDENT PAGE 19 ACTIVITY 5C

Do I add or subtract to find the solution? Find the solution.

1. $\square + 15 = 47$

2. $73 - \square = 35$

3. $\square + 17 = 27$

4. $57 - 13 = \square$

5. $5 = \square - 16$

6. $53 = \square + 18$

7. $\square = 99 - 66$

8. $11 = 89 - \square$

9. $\square + 33 = 78$

10. $85 - \square = 44$

STUDENT PAGE 20 ACTIVITY 5C

Solve these sentences.

1. 42 = ☐ + 15

2. 33 - 11 = ☐

3. 89 - ☐ = 13

4. 25 = ☐ - 7

5. 73 + 26 = ☐

6. 57 + ☐ = 75

7. 43 - 17 = ☐

8. 52 + ☐ = 67

9. ☐ = 23 + 43

10. ☐ - 70 = 14

11. 91 - 29 = ☐

12. ☐ + 35 = 81

13. 50 + ☐ = 95

14. 12 = 47 - ☐

15. 60 - ☐ = 48

16. ☐ + 11 = 62

17. ☐ = 97 - 20

18. 48 + ☐ = 54

19. ☐ + 8 = 91

20. 82 - ☐ = 44

STUDENT PAGE 21 ACTIVITY 5D

Solve these math sentences.

1. 38 + ☐ = 45

2. 60 - ☐ = 39

3. 46 + ☐ = 92

4. 11 = 43 - ☐

5. 17 + 48 = ☐

6. ☐ + 46 = 69

7. 9 + ☐ = 81

8. 34 = ☐ - 17

9. 49 + ☐ = 60

10. ☐ - 27 = 57

11. 48 = ☐ - 41

12. ☐ - 38 = 18

13. ☐ +73 = 98

14. ☐ - 55 = 22

15. 16 + ☐ = 51

16. 47 + ☐ = 63

17. ☐ + 19 = 62

18. 16 = ☐ - 58

19. ☐ - 29 = 39

20. 79 = 65 + ☐

STUDENT PAGE 22 ACTIVITY 5D

Read each story and solve each sentence.

1. Last year 86 billion pieces of mail were handled by the post office. 46 billion pieces were letters. The rest were not. How many were not letters?

2. Rural mail carriers usually drive about 63 miles a day on their routes. They drive about 54 miles before noon and the rest after noon. How many miles do they drive after noon?

3. In the United States there are many small airplanes. Of these, 51 thousand are used for personal flying. The rest, 22 thousand airplanes, are used by businesses. How many small airplanes are there all together?

4. Charles Lindbergh's 1927 airplane, the Spirit of St. Louis, measured 46 feet from the tip of one wing to the tip of the other. The cockpit measured 7 feet and the wings the rest. How long were the wings?

Solve these sentences.

1. 14 + 18 = ☐

2. 31 = ☐ - 27

3. 29 = ☐ - 37

4. 31 + ☐ = 84

5. 82 = ☐ + 28

6. 82 - 36 = ☐

7. 87 = 24 + ☐

8. ☐ + 29 = 80

9. 27 + 32 = ☐

10. 87 = 23 + ☐

11. 18 + ☐ = 50

12. 80 - 18 = ☐

13. 27 = ☐ - 17

14. 63 = 16 + ☐

15. 70 = ☐ + 29

16. 37 + ☐ = 97

17. ☐ + 24 = 64

18. 37 = ☐ - 18

19. 80 - 15 = ☐

20. 16 + ☐ = 72

STUDENT PAGE 24 ACTIVITY 5D

For each problem write a sentence with a □, solve it, and validate it.

1. On Monday Paul planted 28 trees in the orange gardens. On Tuesday he planted more. His total work for both days was 45 orange trees. How many trees did he plant on Tuesday?

2. Louis said there were too many poplar trees along the river. He had 35 of them moved. After 35 were moved, there were 37 left. How many were there to begin with?

3. There were 46 day lilies in the garden. Shirley wanted to make the number of rosebushes the same as the number of lily plants. Shirley removed 7 rosebushes. How many rosebushes had there been?

4. Of the 53 rosebushes in the garden, 36 had red roses and the rest had pink roses. How many had pink roses?

5. On Wednesday Jane swam 45 laps. On Thursday she swam only 17. How many more laps did she swim on Wednesday?

For each problem write a sentence with a □, solve it, and validate it.

1. The first week Bob helped 56 drivers who had car trouble. The second week he helped 35. How many drivers did he help during both weeks?

2. At the beginning of one week, Bob counted 38 abandoned cars. By the end of that week, many had been towed away. Only 9 were left. How many abandoned cars were towed away that week?

3. During the first week, the shortest distance Bob drove on any day was 98 miles. By Friday noon of the second week, he had driven 39 miles. How many more miles did he have to drive to equal the shortest drive of the first week?

4. On one day during the two-week period, Bob counted 53 vehicles that were either cars or trucks. 25 of them were cars. How many were trucks?

5. Bob was driving 35 miles an hour. A car passed him going 51 miles an hour. How much slower was Bob driving?

STUDENT PAGE 26 ACTIVITY 5E

For each problem write a sentence with a □, solve it, and validate it.

1. A small telephone company operated 49 telephones. Some new families moved into town. Each family wanted a phone. After they got phones, there were 66 telephones. How many families moved in?

2. There were 95 miles of telephone cables. Of these 27 miles were buried. The rest were above ground. How many miles of above-ground cable were there?

3. One day two service trucks were busy all day. The yellow truck went 89 miles. The red truck went 56 miles. What was the difference between the two distances traveled?

4. One city had 66 telephones. Another wanted to have the same number. However, they had only 38 phones. How many new phones did they need to equal the 66 phones?

5. There were 32 families who had black telephones. The phone company decided to put white phones in 24 homes. How many families still had black phones?

STUDENT PAGE 27 ACTIVITY 5E

One day Mrs. Tallis, the health-food store owner, kept track of how much food she sold. Find out how much money each person spent and then answer each question.

CUSTOMER	BOUGHT	SPENT
Mr. Carter	7 granola bars for 5¢ each	
Mrs. Smith	26 fruit bars for 3¢ each	
Francis	59 peanuts for 1¢ each	
Gloria	48 raspberry balls for 2¢ each	

1. How much more did Gloria spend than Mrs. Smith?

2. Mrs. Tallis had 19 granola bars left after she sold 7 to Mr. Carter. How many did she have before he bought his?

3. Mr. Carter wanted to spend as much as Francis. How much more would he have to spend?

4. How many more items did Francis buy than Gloria?

STUDENT PAGE 28 ACTIVITY 5E