

PUZZLE IT!
MATH COMPUTATION
PUZZLES

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WELCOME

TO THE FUN OF MATH COMPUTATION PUZZLES

Everybody loves a puzzle! A puzzle is like an unsolved mystery, teasing you to be the one that unravels it. There are few things that match the feeling of satisfaction you experience when, after thinking long and hard about a puzzle, the solution suddenly materializes—clear as crystal. It is a truly magical moment, one that will be remembered.

Here's some more magic: When students wrestle with a puzzle, classroom learning is energized. Who can walk away from the invitation to tackle a puzzle? It's too much fun to try to figure it out. Even the most reluctant students seem to wake up and be drawn into the solution process. But puzzles are much more than fun! They give the brain a workout and nurture problem-solving skills.

Every classroom and home should offer many puzzle-solving opportunities. The National Council of Teachers of Mathematics identifies problem solving as “the cornerstone of school mathematics.” The critical thinking and problem-solving skills that are honed while solving puzzles are basic. They apply to every facet and subject area of learning. In solving puzzles, students make use of such thinking skills as logic, analysis, synthesis, sequencing, creativity, induction, and deduction—and they often must use several of these simultaneously! They must observe, ask questions, consider strategies, try different strategies, visualize different possibilities, and figure out why one thing works and another does not. Many puzzles also refine hand-eye or hand-mind coordination, spatial awareness, and mental gymnastics.

Puzzles must be a part of every serious curriculum. The puzzles in the **Puzzle It!** series challenge students to analyze information and use their critical thinking skills.

ABOUT THE PUZZLES IN THIS BOOK

All of these puzzles sharpen skills in math computation. Starting with addition, they progress to all operations with whole numbers, fractions, decimals, exponential numbers, and positive and negative numbers.

Find missing numbers, practice your computation, check answers, and solve equations as you crack codes, color hidden pictures, follow trails, find your way through mazes, play Bingo, locate mystery numbers, and untangle many other delightful puzzles. The puzzles make heavy use of graphic and other visual clues, and often require you to color or draw. So keep your markers and crayons handy.

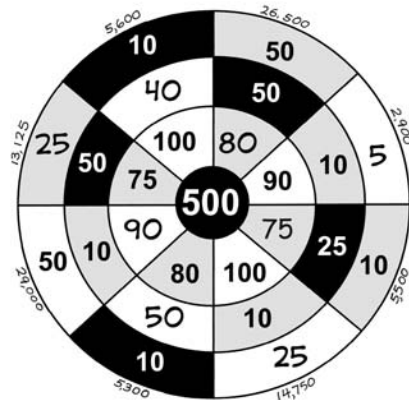
HOW TO USE THE PUZZLES

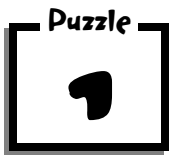
- Look over each puzzle carefully. Read the instructions a few times.
- Consider the puzzle thoughtfully. Make sure the purpose of the puzzle is clear to you.
- Evaluate what it is you must figure out or find.
- Experiment with different strategies and different ideas. Try out different solutions.
- Take one puzzle at a time. A puzzle will grab you and won't let go until you figure it out. So let it swirl around in your head—even over a few days. Stay with it until you reach a solution.
- Try not to peek at the answers. Ask someone else for an idea or a hint if you need help.
- You can tackle a puzzle alone, or share a puzzle with one or more friends, and tackle it together. Share ideas, discuss, argue—until you arrive at a solution.
- When you find a solution, discuss it with someone else. Explain the steps and strategies you used to reach your answer. Compare your solution and methods with someone else's.

ABOUT THE SOLUTIONS . . .

Answers are given for all the puzzles. However, sometimes a puzzle has more than one solution. Give yourself or your students credit for any solution that can be reasonably explained.

Since a main purpose of these puzzles is to sharpen your calculation skills, it is advisable to leave your calculator turned off while you solve the problems. If you want practice with your calculator, use it to check your answers.





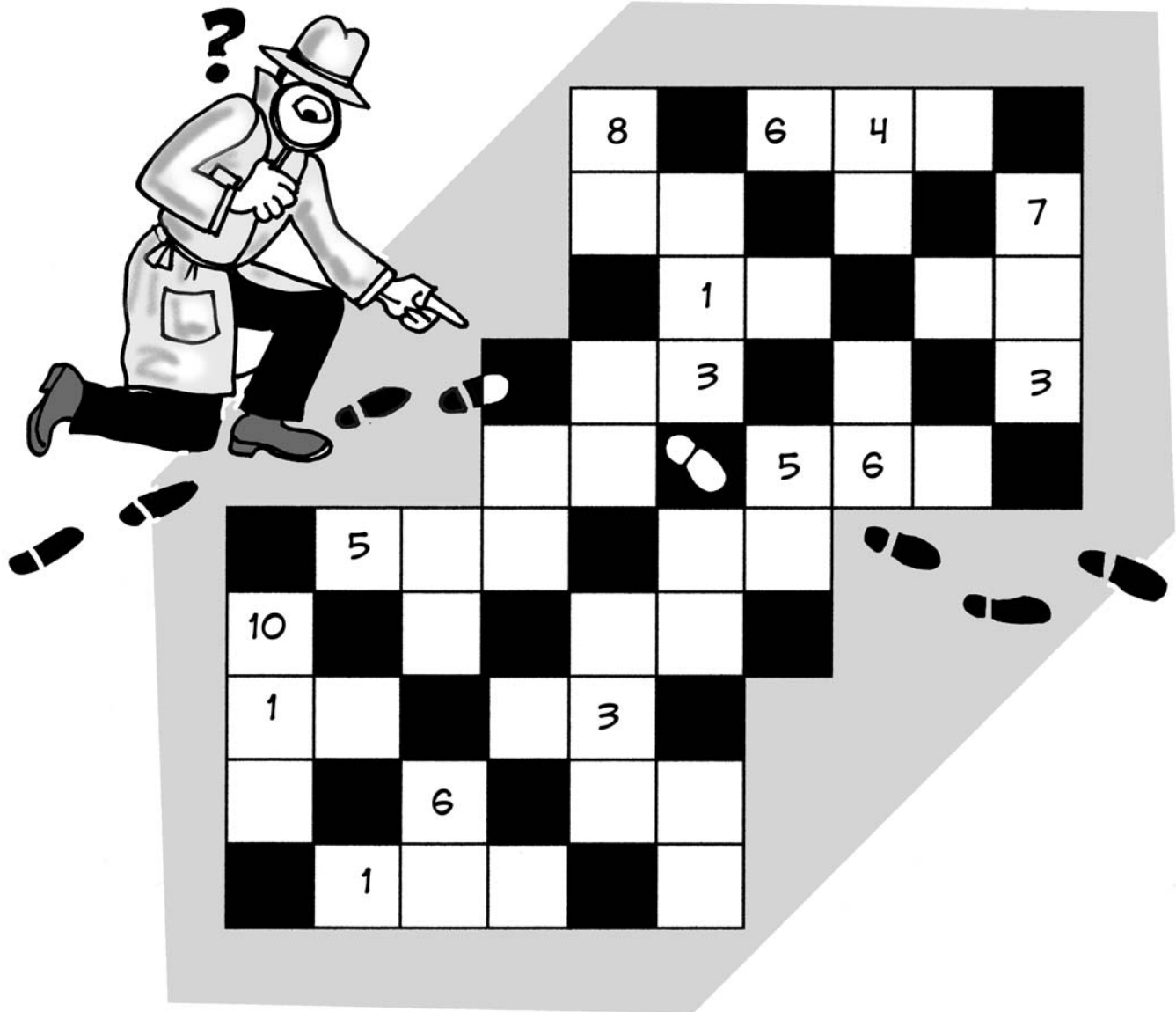
A CASE OF MISSING ADDENDS

The tiles on the floor are the clues Detective C.C. Sly needs to solve the mystery of the lost addends. Help him find the missing digits.

Directions:

Some parts of the puzzle are blank. Find the missing numbers.

The sum of numbers in connected white squares in vertical or horizontal rows must equal 12.



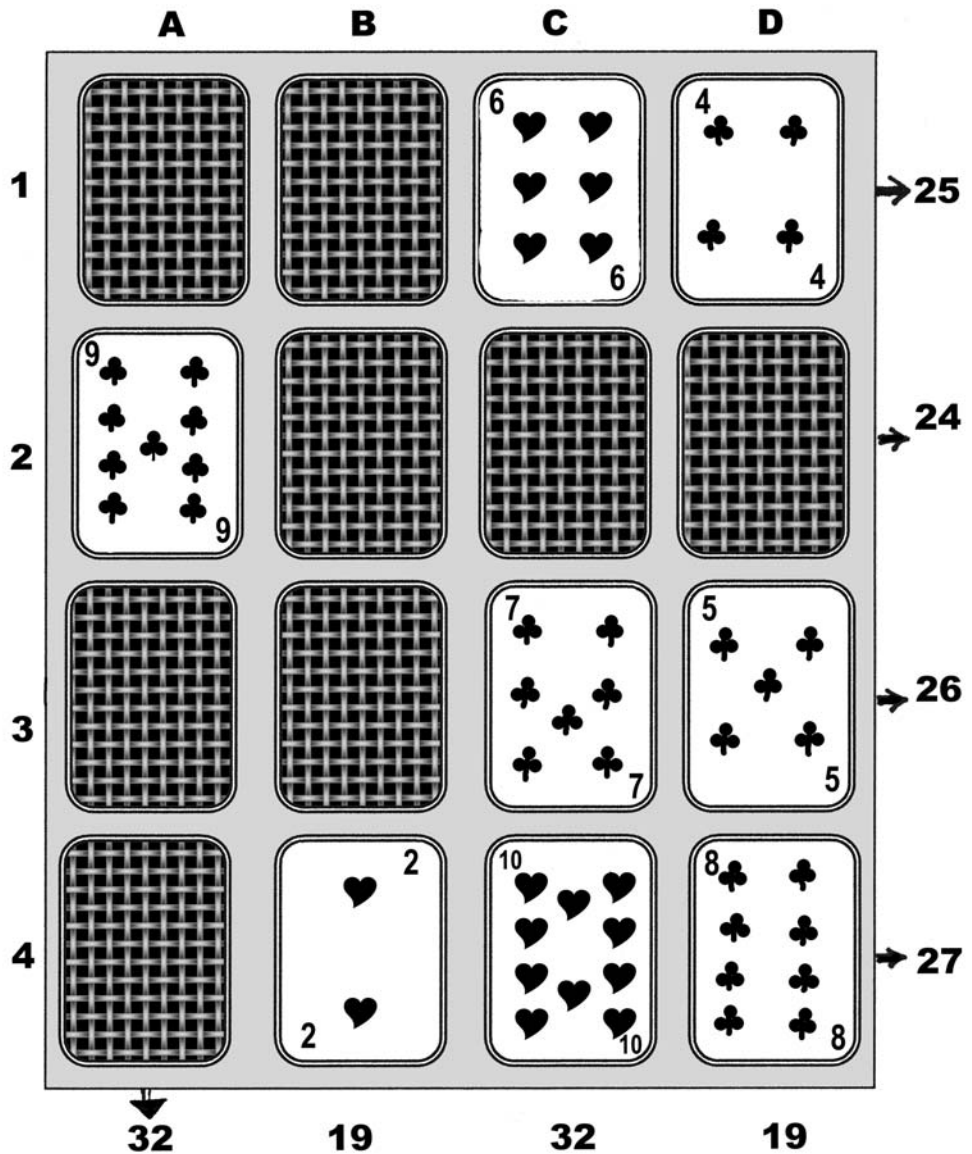
Here's a clue that will help:
A square may have a two-digit number.

Name _____

Puzzle
2

CARD PUZZLER

Knowing the sums will help you solve the puzzle of the hidden cards.



A-1 is _____
A-3 is _____
A-4 is _____
B-1 is _____
B-2 is _____
B-3 is _____
C-2 is _____
D-2 is _____

Directions:

There are eight pairs of cards in the diagram. Each pair consists of a heart card and a club card with the same number. (For example, the 4 of hearts and the 4 of clubs are a pair.)

The sums of the four cards in each column and row are shown. Figure out what the unseen cards are. Write a description of each card (for example, "7 of hearts") in the answer box.

Name _____

CAUGHT IN THE WEB

This sticky web catches many things. Find out what and where they are!

Directions:

As you solve each problem, find the answer on the key. This will tell you what to draw in the section(s) of the web that has that answer and/or how to color the section of the web.



Key:

- | Answer |
|------------|
| 300 |
| 202 |
| 125 |
| 67 |
| 95 |
| 88 |
| 99 |
| 210 |
| 50 or 111 |
| 100 |
| 200 or 120 |

Draw

- Draw a tiny spider. Leave the space white.
- Draw a bee. Leave the space white.
- Draw a ladybug. Leave the space white.
- Draw a butterfly. Leave the space white.
- Draw a worm. Color the space red.
- Color the space red.
- Color the space blue.
- Leave the space white.
- Color the space green.
- Color the space black.
- Color the space yellow.

Name _____