

Perplexors are high-interest logic puzzles that allow students to practice deductive reasoning skills, specifically the process of elimination. Examples and explanations found on the following pages are taken from the Level A Perplexor book, copyright 1999 by MindWare. Books of Perplexors include explanations and answer keys for approximately 50 puzzles. Amazon sells classic Perplexors, Math Perplexors, and STEM Perplexors in all levels of difficulty. Mindware.com has many Perplexor bundles as well as additional materials to practice deductive reasoning. Happy “perplexing!”

The Cat Country Example

Bill, Bob and Bel owned cats with three different names. Their names were Tabby, Flabby and Crabby. The cats wore three different colored collars. Their collars were red, yellow and blue. The cats suffered from three different afflictions: fleas, hairballs and depression. Based on the clues, match the owners with their cat's names, their collar colors and their afflictions

Bill	Bob	Bel
Tabby Flabby Crabby	Tabby Flabby Crabby	Tabby Flabby Crabby
Red Yellow Blue	Red Yellow Blue	Red Yellow Blue
Fleas Hairballs depression	Fleas Hairballs depression	Fleas Hairballs depression

Find the solution and explanation on the next page.

Bill	Bob	Bel
Tabby	Tabby	Tabby
Flabby	Flabby	Flabby
Crabby	Crabby	Crabby
red collar	red collar	red collar
yellow collar	yellow collar	yellow collar
blue collar	blue collar	blue collar
fleas	fleas	fleas
hairballs	hairballs	hairballs
depression	depression	depression

THE CAT COUNTRY SOLUTION

Bill, Bob and Bel owned cats with three different names. Their names were Tabby, Flabby and Crabby. The cats wore three different colored collars. Their collars were red, yellow and blue. The cats suffered from three different afflictions: fleas, hairballs and depression. Based on the clues, match the owners with their cat's names, their collar colors and their afflictions

CLUE #1 is useless until you have done the work on clue #2. Often, when doing logic problems, you have to go back to previous clues.

CLUE #2 allows you to cross off Tabby under both Bill and Bob. This means Tabby must belong to Bel. Circle Tabby under Bel and cross off Flabby and Crabby under Bel. Now we can refer back to clue #1 and we should see that Tabby had to be the cat suffering depression. Circle depression under Bel and cross off fleas and hairballs under Bel. We also cross off depression under Bill and Bob.

CLUE #3 tells us that the cat suffering depression wore red. We know that Bel's cat was depressed, so we circle red under Bel. We cross off yellow and blue under Bel. We cross off red under Bill and Bob.

CLUE #4 tells us to cross off blue and fleas under Bob. After crossing off blue under Bob, we see that yellow is the only remaining possibility under Bob, so we circle it and cross off yellow under Bill, leaving blue to be circled under Bill as the only possible choice. If we look now, we should see that hairballs is the only remaining choice under Bob, so we circle hairballs under Bob. We then cross off hairballs under Bill and circle fleas under Bill by using the process of elimination.

Clue #5 tells us that the cat suffering from fleas was Flabby. We know Bill's cat had fleas so we circle Flabby under Bill and cross off Crabby under Bill. We cross off Flabby under Bob and circle Crabby under Bob to finish the puzzle.

As you can see from the above step-by-step solution of the logic puzzle above, there is an enormous amount of thinking required for even the simplest of puzzles. This is the virtue of logic problems and the reason why our circle and cross out technique is so effective. Go on to the next page for something a bit more demanding.

Three Teachers

THE STORY

Three teachers named Ms. Rock, Ms. Roll and Mr. Rapp taught three different subjects. They taught reading, writing and arithmetic. They used three different reward systems: brownie points, gold stars and red letters. Based on the clues, match the teachers with their subjects and their reward systems.

THE CLUES

1. Ms. Roll did not teach arithmetic, but she did give out brownie points to her best students.
2. Mr. Rapp, and the teacher who gave out gold stars, taught in rooms next to each other.
3. The writing teacher rewarded the neatest, most legible work with red letters.

Ms. Rock	Ms. Roll	Mr. Rapp
reading writing arithmetic	reading writing arithmetic	reading writing arithmetic
brownie points gold stars red letters	brownie points gold stars red letters	brownie points gold stars red letters

THE STORY

Anna, Alice, Alfred and Artie lived on a farm. They all had one chore to do and were allowed one pet. One child milked the cows, one child fixed fences, one child gathered eggs and one child fed the pigs. Their pets were a duck, a turtle, a dog and a horse. Based on the clues, match the children with their chores and their pets.

THE CLUES

1. Anna, Alice and Alfred had pets without feathers.
2. Alice did not gather eggs or feed pigs, but her sister did have one of these chores.
3. The child who milked cows rode his pet all over the farm.
4. Alfred and Anna had chores that involved working with four-legged animals.
5. Alice's pet did not bark.

Anna	Alice	Alfred	Artie
milked cows fixed fences gathered eggs fed the pigs			
duck turtle dog horse	duck turtle dog horse	duck turtle dog horse	duck turtle dog horse

Mouse Preferences

THE STORY

Five mice named Mary, Mark, Millie, Milton and Max were all good friends and enjoyed discussing their likes and dislikes. They all liked cheese, but each had a favorite type: Swiss, Cheddar, Edam, Gouda and Brie. Their least favorite things were cats, traps, poison, ferrets and owls. Based on the clues, match the mice with their favorite types of cheese and their least favorite things.

THE CLUES

1. The mouse that did not like cats did not like Brie or Gouda, either.
2. The Edam-loving mouse did not like ferrets.
3. The mouse that did not like traps loved nothing more than a moist wedge of Brie.
4. Mary, Mark and Millie did not like Cheddar cheese, but none of them disliked ferrets.
5. Max did not like Edam or Brie.
6. Mary and Mark did not like Brie.
7. The Cheddar cheese-loving mouse did not like poison.
8. Mark did not like the taste of Gouda cheese.

Mary	Mark	Millie	Milton	Max
Swiss	Swiss	Swiss	Swiss	Swiss
Cheddar	Cheddar	Cheddar	Cheddar	Cheddar
Edam	Edam	Edam	Edam	Edam
Gouda	Gouda	Gouda	Gouda	Gouda
Brie	Brie	Brie	Brie	Brie
cats	cats	cats	cats	cats
traps	traps	traps	traps	traps
poison	poison	poison	poison	poison
ferrets	ferrets	ferrets	ferrets	ferrets
owls	owls	owls	owls	owls

Withdrawing Money

THE STORY

Four people went to an automated teller machine one day to withdraw money. Their names were Max, Mills, Marty and Mort. They were a potter, a pickler, a scientist and a writer. They each withdrew different amounts of money; they withdrew \$200, \$125, \$50 and \$25. Their last names were Ruble, Scott, Thornton and Upton. Based on the clues, match the people with their jobs, how much money they withdrew and their last names.

THE CLUES

1. Max's job did not start with the letter "P," and he did not write.
2. Mills was the writer.
3. Marty was not a pickler.
4. The scientist, whose name was not Scott, withdrew the most money.
5. Mr. Ruble asked for twice as much as the pickler.
6. The one who withdrew \$125 was not the writer.
7. Mr. Thornton was not the writer and asked for \$25.

Max	Mills	Marty	Mort
potter pickler scientist writer	potter pickler scientist writer	potter pickler scientist writer	potter pickler scientist writer
\$200 \$125 \$50 \$25	\$200 \$125 \$50 \$25	\$200 \$125 \$50 \$25	\$200 \$125 \$50 \$25
Ruble Scott Thornton Upton	Ruble Scott Thornton Upton	Ruble Scott Thornton Upton	Ruble Scott Thornton Upton