

Instructions

Logic is a way of thinking about things that you do not have to be taught because you already use this kind of thinking many times a day. When you are faced with a number of choices for anything, you use logic to make your choice. Look at the simple chart below to see an example of the kinds of choices you might use logic for to make a decision. In the chart below, we are looking for our friend Joe. Joe is at one of three possible places. He is either at the playground, the swimming pool, or on the bicycle trail. To show this clearly, we are going to make a chart with Joe's name at the top, with the three possible places listed under his name. We are going to give you two clues to help you use your logic to figure out where Joe is today so you can play with him. On the chart, cross out the places that Joe would not be, based on the clues. Circle the place where your logic tells you Joe can be found.

Joe
playground
swimming pool
bicycle trail

THE CLUES

1. It is a very cool day and Joe does not like to swim when it is cold.
2. Joe's bicycle was stolen last week.

Joe
playground
swimming pool
bicycle trail

Did you figure out the most logical place to look for Joe? Your completed chart should look like the chart shown to the left.

Your logic told you to cross out swimming pool because of the cool temperatures. Your logic told you to cross out bicycle trail because Joe did not have a bicycle. Based on the information, playground should be circled because it is the logical choice.

When you use logic, you are being a detective. You use clues to help you to make logical decisions. To make this more fun, we have made the puzzles larger. You will still be crossing out choices when the clues tell you that the choice does not match with the person's name. You will still be drawing a circle around the answer choice that the clues tell you is the only possible answer. It is very important for you to cross out and circle based on all of the information given by the clues. As you can see, what is not the answer told us where to find Joe. Work out the sample puzzle shown below and see if you can figure out where everyone is. Each of the three children in the puzzle is at a different place.

Bob	Ted	Carol
playground	playground	playground
swimming pool	swimming pool	swimming pool
bicycle trail	bicycle trail	bicycle trail

THE CLUES

1. Bob and Carol were not at the playground.
2. Carol did not know how to ride a bicycle!

Did you cross out and circle correctly as shown by the completed puzzle below?

Bob	Ted	Carol
playground	playground	playground
swimming pool	swimming pool	swimming pool
bicycle trail	bicycle trail	bicycle trail

The first clue told you to cross out playground under both Bob and Carol. When you did this, the only choice left for Ted was the playground. When you circled playground under Ted, did you remember to cross out swimming pool and bicycle trail, too? If Ted was at the playground, he could not be at either the swimming pool or the bicycle trail!

The second clue told you to cross out bicycle trail under Carol. This meant she had to be at the swimming pool. It also meant that Bob had to be on the bicycle trail. If you did the puzzle correctly, there should have been only one answer left under Bob.

Let's do one more sample puzzle before you start doing these sample puzzles. In the puzzle below, Bob, Ted and Carol each have a different pet and the pets each have a different name. Based on the clues, match the names with their animal types and their animal names.

Bob	Ted	Carol
dog	dog	dog
cat	cat	cat
ferret	ferret	ferret
Fido	Fido	Fido
Fluffy	Fluffy	Fluffy
Felix	Felix	Felix

THE CLUES

1. The dog was not Fido, and the cat was not named Felix.
2. Ted's pet was not a cat or a ferret.
3. Bob's pet was not Felix.
4. The ferret was not named Fluffy and did not belong to Carol.

You should have had an easy time with this puzzle if you recorded your information properly by crossing out and circling as we have shown you.

Clue one did not help you until you had more information. Clue two should have told you to cross out cat and ferret under Ted. When you did this, you should have seen that dog had to be Ted's pet. Circle dog under Ted and cross out dog under Bob and Carol. Now you can use part of clue one and cross out Fido under Ted because we know the dog was not named Fido. Clue three tells us to cross out Felix under Bob. Clue four tells us to cross out ferret under Carol and this tells us that the cat belongs to Carol and the ferret belongs to Bob. Going back to clue one, we can now cross out Felix under Carol. When we do this, we see Felix must be the answer under Ted. Back to clue four: we know the ferret was not named Fluffy, and when we cross out Fluffy under Bob, the puzzle is solved after we finish crossing out and circling.

Answers:

Bob	Ted	Carol
ferret	dog	cat
Fido	Felix	Fluffy

1

A Shell of a Different Color

THE STORY

Three turtles named Mike, Max and Mark decided to redecorate their shells, and each one used a different colored paint. They used violet, yellow and orange paint. Each of the turtles had a different last name. Their last names were Carson, Larson and Parsons. Based on the clues, match the turtles with their correct shell colors and their last names.

THE CLUES

1. Mike thought Larson's bright yellow shell looked good on him.
2. Max thought Parson's orange shell made him look too flashy, but he did like Larson's color choice.

Mike	Max	Mark
violet	violet	violet
yellow	yellow	yellow
orange	orange	orange
Carson	Carson	Carson
Larson	Larson	Larson
Parsons	Parsons	Parsons

2

Cats in Hats

THE STORY

Four cats named Bob, Barb, Billy and Beulah wore four different colored hats. Their hats were purple, rose, pink and green. Each of the cats was a different type. One was an alley cat, one was a Siamese, one was a Persian and another was a Manx. Based on the clues, match the cats with their hat colors and their cat types.

THE CLUES

1. Bob and Barb did not wear either purple or pink hats.
2. The Siamese cat wore a green hat, and the alley cat wore a purple hat.
3. The Persian cat wore a rose-colored hat.
4. Bob was not Persian, and Billy's hat was not purple.

Bob	Barb	Billy	Beulah
purple	purple	purple	purple
rose	rose	rose	rose
pink	pink	pink	pink
green	green	green	green
alley	alley	alley	alley
Siamese	Siamese	Siamese	Siamese
Persian	Persian	Persian	Persian
Manx	Manx	Manx	Manx

3

Sporty Pigs

THE STORY

Four pigs named Hal, Herb, Helga and Helena wore different colored jackets. Their jackets were red, blue, green and yellow. They also had different nicknames. Their nicknames were Snookums, Snortums, Cuddles and Tiny. Each of the pigs enjoyed a different sport. One liked to pole vault; one liked to high jump; one liked bowling; and one liked basketball. Based on the clues, match the pigs with their jacket colors, their nicknames and their favorite sports.

THE CLUES

1. Helga and the pig in the red jacket played sports that did not use a ball.
2. Hal and the pig nicknamed Snortums played sports that did use a ball.
3. Herb did not pole vault or high jump.
4. The pig in the yellow jacket was nicknamed Tiny and enjoyed the high jump.
5. Cuddles wore a blue jacket and loved bowling.

Hal	Herb	Helga	Helena
red	red	red	red
blue	blue	blue	blue
green	green	green	green
yellow	yellow	yellow	yellow
Snookums	Snookums	Snookums	Snookums
Snortums	Snortums	Snortums	Snortums
Cuddles	Cuddles	Cuddles	Cuddles
Tiny	Tiny	Tiny	Tiny
pole vault	pole vault	pole vault	pole vault
high jump	high jump	high jump	high jump
bowling	bowling	bowling	bowling
basketball	basketball	basketball	basketball

THE STORY

Five goats named Ben, Bart, Betty, Bertha and Beverly decided to have a race to see which of them could run the fastest. Each of the goats chose a different animal to ride on their backs as jockeys. The jockeys were a skunk, a turtle, a monkey, a rabbit and a chicken. Naturally enough, the goats finished in 1st, 2nd, 3rd, 4th and 5th places. Based on the clues, match the goats with their animal jockeys and their order of finish.

THE CLUES

1. Bart finished just one place behind Betty, and Beverly finished just one place behind Bart, and none of them had a skunk on their backs!
2. Ben finished just one place behind Bertha, and Bertha, who did not have a skunk on her back, finished just one place behind Beverly.
3. The goat with the rabbit jockey was the winner of the race.
4. The goat with the turtle jockey finished just one place behind the goat with the chicken jockey, but in front of both Ben and Bertha!

Ben	Bart	Betty	Bertha	Beverly
skunk	skunk	skunk	skunk	skunk
turtle	turtle	turtle	turtle	turtle
monkey	monkey	monkey	monkey	monkey
rabbit	rabbit	rabbit	rabbit	rabbit
chicken	chicken	chicken	chicken	chicken
1st place				
2nd place				
3rd place				
4th place				
5th place				

Solutions to Puzzles

1. A Shell of a Different Color

Mike	Max	Mark
orange	violet	yellow
Parsons	Carson	Larson

2. Cats in Hats

Bob	Barb	Billy	Beulah
green	rose	pink	purple
Siamese	Persian	Manx	alley

3. Sporty Pigs

Hal	Herb	Helga	Helena
blue	green	yellow	red
Cuddles	Snortums	Tiny	Snookums
bowling	basketball	high jump	pole vault

4. Racing Goats

Ben	Bart	Betty	Bertha	Beverly
skunk	chicken	rabbit	monkey	turtle
5th place	2nd place	1st place	4th place	3rd place