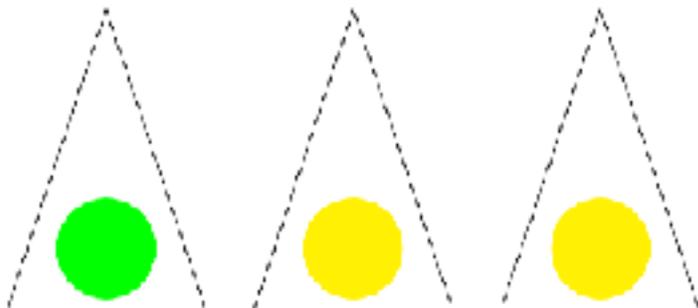


1 Intro to Wizard Training

A part of wizardry training is developing logic skills. In the following exercises, two students will be presented with three wizards hats, one with a green label and two with yellow labels.



The students will be asked to close their eyes. One hat will be hidden, the others will be put on the students heads. The students will open their eyes, and then be asked, "Who knows what color hat he/she has on? If so, which color is it?" The students can figure out the color hat he/she is wearing only by observing the hat of the other student. A student is not allowed to look at his/her own hat. This kind of cheating will be punished by turning the cheat into a toad!

Delise and Chris are given two hats. Delise gets the green labeled hat, and Chris gets a yellow-labeled one.

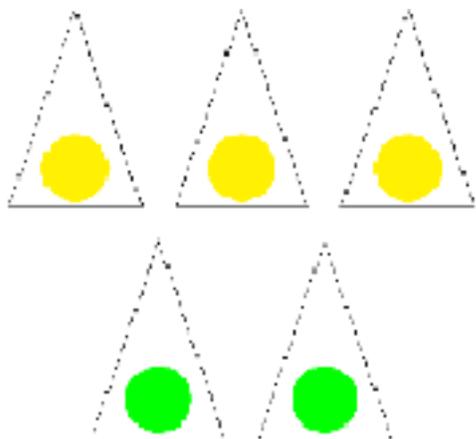
1. Bree asks them what color hat they have on. What are Delise and Chris going to say? Explain.
2. After hearing Chris's answer, can Delise now figure out which color hat she has on? Explain why or why not.

This time, Delise and Chris are both given the yellow labeled hats.

1. Bree asks them what color hat they have on. What are Delise and Chris going to say? Explain.
2. Now that they heard each others answers, can either of them figure out the color of their hat? How?

2 Wizard Training Progresses

As the training progresses, three students will be chosen and presented with five hats, three with yellow dots and two with green. Once again, the students will be asked to close their eyes. Two hats will be hidden, three will be put on the students heads. The students will be asked to open their eyes and to figure out the color of their hat labels by observing those of the other students.



Renee, Laurie, and Darren are given the hats. Renee gets a yellow-labeled hat, Laurie and Darren get the hats with green labels.

1. What will each person say when they are asked for the color of their hats? Explain.
2. After hearing each person's answer, can others figure out which color hat they have on? How?

3 Wizard Training Final Challenges

There are 10 wizards and 10 hats. Each wizard is assigned a random hat, either red or blue, but the number of each color hat is not known to the wizards. The wizards will be lined up single file where each can see the hats in front of them but not behind. Starting with the wizard in the back of the line and moving forward, they must each, in turn, say only one word which must be "red" or "blue". If the word matches their hat color they pass the test, if not, they are detained. A friend warns them of this test one hour beforehand and tells them that they can formulate a plan where by following the stated rules, 9 of the 10 prisoners will definitely pass, and 1 has a 50 percent chance of passing. What is the plan to achieve the goal?