

## Hats, Hats, Hats

Five logicians got together one evening to play some logic games. Their first game consisted of four players and one emcee who ran the game. The four players were Ryan, Torrey, Michael, and Bonnie. Janet acted as the emcee. Janet told the players that she was shuffling four white hats and three black hats and was going to put a hat on each of their heads. Each person would be given a chance to tell what color hat he or she was wearing. Janet told everyone to close their eyes. She then put a hat on each head and lined people up in single file, facing in the same direction. Ryan, the person in the back, could see all the other heads when he opened his eyes. Janet asked him if he knew what color hat he was wearing. He didn't know and said so. Torrey was next in line. She could not see Ryan, but could see the other two players. She also said she didn't know her hat color. Michael could see only Bonnie, and he said that he didn't know either. Bonnie, who was in front and could see no one else, knew the color of the hat on her head and announced it correctly. What color was her hat, and how did she know?