**Arithmetical and Logical Word Problems:**

1. You have black socks and blue socks in a drawer, mixed in a ratio of four to five. Because it is dark, you are unable to see the colors of the socks that you take out of the drawer. How many socks do you have to take out of the drawer to be assured of having a pair of socks of the same color?

**Answer:**

1. A teacher had twenty-three pupils in his class. All but seven of them went on a museum trip and thus were away for the day. How many of them remained in class that day?

**Answer:**

1. According to the U.S. Constitution, if the vice president of the United States should die, who would be the president?

**Answer:**

1. Fifteen percent of the people in a certain town have unlisted telephone numbers. You select two hundred names at random from the local phone book. How many of these people can be expected to have unlisted telephone numbers?

**Answer:**

1. In the Thompson family, there are five brothers, and each brother has one sister. If you count Mrs. Thompson, how many females are there in the Thompson family?

**Answer:**

1. A taxi driver picked up a fare at the Hyatt Regency Hotel who wanted to go to the airport. The traffic was heavy, and the taxicab’s average speed for the entire trip was just forty miles per hour. The total time of the trip was eighty minutes, and the customer was charged accordingly. At the airport, the taxi driver picked up another customer who wanted to be taken to the same Hyatt Regency Hotel. The taxi driver returned to the hotel along the same route that he had used just before, and traveled with the same average speed. But this time the trip took an hour and twenty minutes. Can you explain why?

**Answer:**

1. A clothing store ordered eighty new dresses. Each dress cost the manager $40. The total bill was $3,200. After he had placed the order, the store manager discovered that had he ordered one hundred or more dresses, he would have received a 10 percent discount. If the manager had ordered five more dresses, how much more would he have had to pay?

**Answer:**

1. One day, a woman hailed a passing taxicab. On the way to her destination, she chattered incessantly. The taxi driver got annoyed. In desperation, he finally said, “Lady, I can see in the mirror that you are trying to talk to me. I’m very sorry, but I cannot hear a single word you are saying. I am extremely hard of hearing, and my hearing aid has not worked all day.” When the woman heard this, she stopped talking, feeling very sorry for the driver. But after she got out at her destination, paid her fare, and watched the cab drive away, she suddenly realized that the driver had lied to her. How did she know that the driver had lied?

**Answer:**

1. Susan gets in her car in Boston and drives toward New York City, averaging fifty miles per hour. Twenty minutes later, Ellen gets in her car in New York City and starts driving toward Boston, averaging sixty miles per hour. Both women take the same route, which extends a total of 220 miles between the two cities. Which car is nearer to Boston when they meet?

**Answer:**

1. Howard is given a choice of three doors and must open one of them. Behind Door #1, there are raging fires. Behind Door #2, there are a hundred assassins with knives and guns. Behind Door #3, there are lions that haven’t eaten in three years. Which door would be safest to open?

**Answer:**

1. An airplane crashes on the U.S.-Canadian border. In what country are the survivors buried?

**Answer:**