

10. How Can It Be?:

He was bald.

11. A Boy and Girl:

The boy has black hair and the girl has red hair. The statement “At least one of them is not telling the truth” means that one or more is not telling the truth. That is either the first one or the second one is not telling the truth—or both are not. If the first one is not telling the truth, then the first speaker is in truth a girl. Since the opening sentence says there is a boy and a girl, if the first speaker is in truth a girl, then the second speaker must be a boy. We arrive at the same result if we begin with the assumption that the second speaker is not telling truth. The fact is that, in accordance with the given information, if either one of them is not telling the truth, the other isn’t either.

12. Spring Walk:

It took the man the same length of time to go in a clockwise direction or in a counter-clockwise direction. One hour and twenty minutes is the same as eighty minutes.

13. Marriage or Death:

The boy chose one of the pieces of paper and immediately swallowed it. Then he said that the remaining piece of paper (the one he didn’t choose) should be read. Since (as he knew) it would contain the word DEATH, the piece he had chosen must (according to the king’s stated rules) have said MARRIAGE. The king could not deny this without exposing his dark and devious plot.

14. Bottle of Water:

You begin with eight liters of water in the bottle; the two smaller containers are empty. Step 1: Pour water into the five-liter container until it is full; this will leave three liters in the eight-liter bottle. Step 2: Pour water from the five-liter container into the three-liter container until the latter is full; this will leave two liters in the five-liter container. You now have three liters in the biggest container, two liters in the middle container, and three liters in the smallest container. Step 3: Pour the three liters out of the smallest container into the biggest container. You now have six liters in the biggest container, two liters in the middle container, and nothing in the smallest container. Step 4: Pour the two liters from the middle container into the smallest container. You now have six liters in the largest container, nothing in the middle container, and two liters in the smallest container. Step 5: Pour water from the largest container into the middle container until the latter is full. This will leave one liter in the largest container, five liters in the middle container, and two liters in the smallest container. Step 6: Pour water from the middle container into the smallest container. (Since the latter already contains two liters, it will take only one liter to fill it.) This leaves four liters in the middle container, three liters in the smallest container, and one liter in the largest container. Step 7: Pour the three liters from the smallest container into the largest container, which will then contain four liters. You now have four liters in the large (eight-liter) bottle and four liters in the five-liter container.