

SIX CLASSIC TRICK QUESTIONS AND LOGIC PUZZLES, WITH ANSWERS

EASY TO HARD

6 PUZZLES

ANSWERS INCLUDED

Six puzzles where the answer is hiding in the wording, starting easy and finishing hard. Read each one slowly. They come from Amusements in Mathematics by Henry Ernest Dudeney, published in 1917, in his own words.

NO. 1 · EASY

THE MOTOR-CAR RACE

I happened to be at a motor-car race at Brooklands, when one spectator said to another, while a number of cars were whirling round and round the circular track:

“There’s Gogglesmith, that man in the white car!”

“Yes, I see,” was the reply; “but how many cars are running in this race?”

Then came this curious rejoinder: “One-third of the cars in front of Gogglesmith added to three-quarters of those behind him will give you the answer.”

Now, can you tell how many cars were running in the race?

NO. 2 · EASY, WITH A TRAP

THE INDUSTRIOUS BOOKWORM

Our friend Professor Rackbrane is propounding another of his little posers. He is explaining that since he last had occasion to take down those three volumes of a learned book from their place on his shelves a bookworm has actually bored a hole straight through from the first page to the last. He says that the leaves are together three inches thick in each volume, and that every cover is exactly one-eighth of an inch thick, and he asks how long a tunnel had the industrious worm to bore in preparing his new tube railway. Can you tell him?

In plain English: Three volumes stand in order on a shelf, left to right. The pages of each are 3 inches thick, and each cover is $\frac{1}{8}$ of an inch. A bookworm bores in a straight line from the first page of Volume 1 to the last page of Volume 3. How far does it go?

NO. 3 · MEDIUM

THE FOOTBALL PLAYERS

“It is a glorious game!” an enthusiast was heard to exclaim. “At the close of last season, of the footballers of my acquaintance four had broken their left arm, five had broken their right arm, two had the right arm sound, and three had sound left arms.” Can you discover from that statement what is the smallest number of players that the speaker could be acquainted with? It does not at all follow that there were as many as fourteen men, because, for example, two of the men who had broken the left arm might also be the two who had sound right arms.

NO. 4 · MEDIUM

THE VILLAGE SIMPLETON

A facetious individual who was taking a long walk in the country came upon a yokel sitting on a stile. As the gentleman was not quite sure of his road, he thought he would make inquiries of the local inhabitant; but at the first glance he jumped too hastily to the conclusion that he had dropped on the village idiot. He therefore decided to test the fellow’s intelligence by first putting to him the simplest question he could think of, which was, “What day of the week is this, my good man?” The following is the smart answer that he received:

“When the day after to-morrow is yesterday, to-day will be as far from Sunday as to-day was from Sunday when the day before yesterday was to-morrow.”

Can the reader say what day of the week it was? It is pretty evident that the countryman was not such a fool as he looked. The gentleman went on his road a puzzled but a wiser man.

NO. 5 · HARD

A CALENDAR PUZZLE

If the end of the world should come on the first day of a new century, can you say what are the chances that it will happen on a Sunday?

NO. 6 · HARD

THE TROUBLESOME EIGHT

Nearly everybody knows that a “magic square” is an arrangement of numbers in the form of a square so that every row, every column, and each of the two long diagonals adds up alike. For example, you would find little difficulty in merely placing a different number in each of the nine cells so that the rows, columns, and diagonals shall all add up 15. And at your first attempt you will probably find that you have an 8 in one of the corners. The puzzle is to construct the magic square, under the same conditions, with the 8 in the middle cell of the top row.

In plain English: Put a different number in each square of a 3 by 3 grid so that every row, every column and both diagonals add up to 15. The 8 must go in the middle square of the top row.

All six are from [Amusements in Mathematics](#) (1917), which is in the public domain. The worked answers are our own.