BRAIN TEASERS

SIX CLASSIC BRAIN TEASERS FROM 1917, WITH ANSWERS

EASY TO HARD | 6 PUZZLES | ANSWERS INCLUDED

Six puzzles that have been catching people out since 1917, starting easy and finishing hard. They come from Amusements in Mathematics by Henry Ernest Dudeney, in his own words.

NO. 1 · EASY

A FAMILY PARTY

A certain family party consisted of 1 grandfather, 1 grandmother, 2 fathers, 2 mothers, 4 children, 3 grandchildren, 1 brother, 2 sisters, 2 sons, 2 daughters, 1 father-in-law, 1 mother-in-law, and 1 daughter-in-law. Twenty-three people, you will say. No; there were only seven persons present. Can you show how this might be?

NO. 2 · EASY

PAINTING THE LAMP-POSTS

Tim Murphy and Pat Donovan were engaged by the local authorities to paint the lamp-posts in a certain street. Tim, who was an early riser, arrived first on the job, and had painted three on the south side when Pat turned up and pointed out that Tim's contract was for the north side. So Tim started afresh on the north side and Pat continued on the south. When Pat had finished his side he went across the street and painted six posts for Tim, and then the job was finished. As there was an equal number of lamp-posts on each side of the street, the simple question is: Which man painted the more lamp-posts, and just how many more?

NO. 3 · EASY, WITH A TRAP

AVERAGE SPEED

In a recent motor ride it was found that we had gone at the rate of ten miles an hour, but we did the return journey over the same route, owing to the roads being more clear of traffic, at fifteen miles an hour. What was our average speed? Do not be too hasty in your answer to this simple little question, or it is pretty certain that you will be wrong.

NO. 4 · MEDIUM

A TIME PUZZLE

How many minutes is it until six o'clock if fifty minutes ago it was four times as many minutes past three o'clock?

In plain English: It is now some number of minutes before six. Fifty minutes ago, the time past three was four times that number. What is the number?

NO. 5 · MEDIUM

THEIR AGES

"My husband's age," remarked a lady the other day, "is represented by the figures of my own age reversed. He is my senior, and the difference between our ages is one-eleventh of their sum."

In plain English: Her husband's age is her age with the two digits swapped. He is older. How old are they?

NO. 6 · HARD

CATCHING THE THIEF

"Now, constable," said the defendant's counsel in cross-examination, "you say that the prisoner was exactly twenty-seven steps ahead of you when you started to run after him?"

"Yes, sir."

"And you swear that he takes eight steps to your five?"

"That is so."

"Then I ask you, constable, as an intelligent man, to explain how you ever caught him, if that is the case?"

"Well, you see, I have got a longer stride. In fact, two of my steps are equal in length to five of the prisoner's. If you work it out, you will find that the number of steps I required would bring me exactly to the spot where I captured him."

Here the foreman of the jury asked for a few minutes to figure out the number of steps the constable must have taken. Can you also say how many steps the officer needed to catch the thief?

In plain English: The thief starts 27 of his own steps ahead. He takes 8 steps while the officer takes 5, but each of the officer's steps is as long as two and a half of his. How many steps does the officer take?

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