Puzzle 15

Recently a famous actress who looked in her mid-twenties (but had been around too long for that to have been true) was asked by a daring reporter what her actual age really was. She replied that she would tell him her age if he would tell her his. After he confessed his years, she revealed that the figures in her age were the same as his only reversed. She added that the reporter was older than she and the difference between their ages was one-eleventh of the sum. How old was the actress and how old was the reporter?

Puzzle 16

The large circular table pictured above is touching both walls in its corner location. That spot you see on the edge is some ketchup left by some messy eater. Now, if that spot of ketchup is exactly eight inches from one wall and nine inches from the other, can you determine the diameter of the table without bothering to measure it?

Puzzle 17

The diagram above depicts a missile complex somewhere in Montana. The janitor’s job is to sweep all 17 tunnels connecting the 12 launch sites. Assuming the sites are 1 mile apart and he can start and finish where he likes, what is the shortest distance he need cover (even if he has to go through some tunnels more than once) and which is the shortest route to accomplish his sweeping job?

Puzzle 18

Put any number of dots you wish on a page to represent any number of delegates to a recent convention of ex-kamikaze pilots. Now draw lines between the dots to represent handshakes between the men. A pilot may shake hands any number of times or not at all. Now, can you prove logically that the number of pilots shaking hands an odd number of times must always be even?
New and useful solvents and chemicals are solutions our research chemists can help you with. For example, Signal Oil and Gas Company’s new pilot plant is producing semi-commercial quantities of Methyl and Dimethyl Cyclohexane, which promise to be useful both as solvents and chemical intermediates. In fact, processes of all types are under intense study at the pilot plant, not merely to solve puzzles, but to improve products by making them more effective and more economical.

Whether it be for surface coatings, textiles, plastics, synthetic rubbers or scores of other products too numerous to mention, Signal Oil and Gas Company is constantly striving to provide new and better petrochemicals.

Of course, not all petrochemical puzzles require our pilot plant or our PhD’s. Usually, one of our standard products will do the job because it’s consistently manufactured to the rigidly tight specs and high purity standards that have always distinguished the Espesol line. Our record of dependable, on-time delivery helps, too...and so does our staff of field reps who are masters at solving day-to-day petrochemical puzzles. Give one of them a call and see for yourself.

Solutions to puzzles on opposite page:

(15) The actress was 45 and the reporter 54.

(16) A simple quadratic equation and sound logic will do the trick. Doubling the product of the two distances from the wall gives you 144, which is the square of 12. The sum of the two distances is 17. If we add these two numbers, 12 and 17, together, and also subtract one from the other, we get the two answers that 29 or 5 is the radius, or half-diameter of the table. So, either the full diameter is 58 inches or 10 inches. Judging by the illustration, a 10-inch diameter would not be the logical solution. The table must, therefore, have a diameter of 58 inches.

(17) The solution the janitor came up with (and you can bet it’s the shortest) was to start at A and proceed in the following directions: A-D-G-D-E-F-I-I-F-C-B-E-H-K-L-I-H-G-J-K. Total distance is 19 miles. There may be other routes, but none that we know of that is shorter than 19 miles.

(18) The first handshake will produce two “odd persons.” From then on handshakes will occur between either two odd persons, two even persons or one odd and one even person. Each odd-odd shake decreases the number of odd persons by 2. Each even-even shake increases the number of odd persons by 2. Each odd-even shake changes an odd to even and an even to odd, leaving the number of odds unchanged. Therefore, there is no way that the even number of odd persons can shift its parity; it must always be even.