

# Puzzle

As usual, we challenge you to solve these fresh new puzzles for your own mathematical pleasure. But first we present the solutions of the puzzles of the previous Aenorm.

## A popular sport among econometricians

All of the holes are of a length which is dividible by 25, so it is obvious that the length of the strokes should be a multiple of 25. By some simple reasoning it's best to use a driver of 150 yards and an approach of 125 yards to complete the nine hole course. By doing so, you can run the course in twenty-six shots.

## Uncle Sam's Fob Chain

To solve this puzzle it's important to notice that the coins and the eagle can be displayed on two sides, which makes two different combinations. This way the first coin can be displayed in 10 ways, the 2nd in 8 ways, the third in 6 ways and the 4th in 4 ways. This gives  $10 \cdot 8 \cdot 6 \cdot 4 = 3,840$  combinations. By changing the order of the coins, twenty-four (4!) different strings of coins are to be made. So the correct answer to the puzzle is  $3,840 \text{ times } 24 = 92,160$ .

Unfortunately, we only received a correct submission for the first puzzle. However, since S. Hoving managed to beat Sam Loyd in finding a new correct answer to the first puzzle he still deserves to be the winner of the book token. Congratulations!

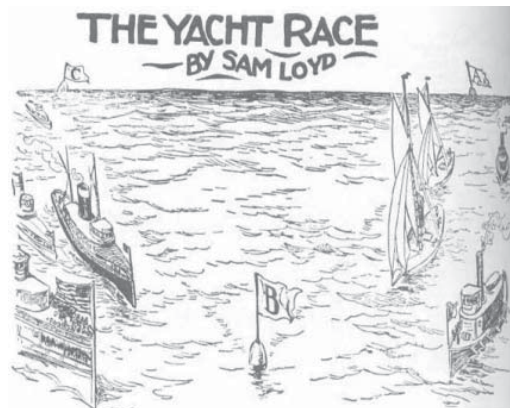
The new puzzles for this edition are:

## Domestic Complications

This puzzle involves the ordinary affairs of life and seems to be much harder for a mathematician to solve than it is for a housewife. Smith, Jones and Brown were great friends. After Brown's wife died, his niece kept house for him. Smith was also a widower and lived with his daughter. When Jones got married, he and his wife suggested that they all live together. Each one of them was to contribute \$25.00 monthly for household expenses and what remained at the end of the month was to be equally divided. The first month's expenses were \$92.00. When the remainder was distributed each received an even number of dollars without fractions. How much money did they receive and why?

## Yacht Race

Below a race is sketched between two Yacht's on a triangular course from buoy A to B to C, then back to A again. This puzzle is about three people on the winning yacht who tried to record the speed of this boat, but became seasick before reaching the finish. Therefore, the first one was only able to observe that the yacht sailed the first three-quarters of the race in four and a half hour. The second one noted only that it did the final three-quarters in four and a half hour. The third one observed that the middle of the race (B to C) took ten minutes longer than the first leg. Assuming that the buoys mark an equilateral triangle and that the boat had a constant speed on each leg, can you tell how long it took the yacht to finish the race?



## Solutions

Solutions to the two puzzles above can be submitted upto March 1st. You can hand them in in the VSAE room, room C6.06, mail them to [info@vsae.nl](mailto:info@vsae.nl) or send them to VSAE, for the attention of Aenorm puzzle 58, Roetersstraat 11, 1018 WB Amsterdam, Holland. Among the correct submissions, one book token will be given. Solutions can be submitted both in English as in Dutch.