

ESERCIZIO 5

Si faccia riferimento all'Allegato A - OPS 2016, ELEMENTI DI PSEUDOLINGUAGGIO, pagina 23.

PROBLEMA

Si consideri la seguente procedura PROVA2.

```

procedure PROVA2;
variables Q, M, J, K integer;
Q ← 0;
M ← 0;
K ← 1;
for J from 1 to 6 step 1 do
    K ← K × J;
    M ← M + J;
    Q ← Q + K + J;
endfor;
output M, Q;
endprocedure;
    
```

Trovare i valori di output.

M	
Q	

ESERCIZIO 6

PROBLEM

Numberland is a small country, where each car has a license plate with only numbers. The font they use is the following:

1 2 3 4 5 6 7 8 9 0

John bought a new car and was displeased to note that on his new plate all five figures were different so they were difficult to remember. Moreover, he inadvertently screwed the plate rotated on his car, so the digits were upside-down and in reverse order, with the result that he increased his registration number by 78633 until he noticed and corrected the error.

What was the (right) number on his license plate? Write the five-digit number in the box below.

Hint: consider the digits that remain digits when put upside-down.

ESERCIZIO 7

PROBLEM

Let's denote by “÷” the ordinary division (among rational numbers); we can insert brackets in the expression

$$1 \div 2 \div 3$$

so as to give it one of two values, viz.

either $(1 \div 2) \div 3 = \frac{1}{6}$

or $1 \div (2 \div 3) = \frac{3}{2}$.

By inserting brackets in different ways, how many different values can be given to the expression

$$1 \div 2 \div 3 \div 4 \div 5 \div 6 ?$$

Put your answer, as an integer number, in the box below.