

MathsJam 2011

Cryptarithmic Puzzles

By

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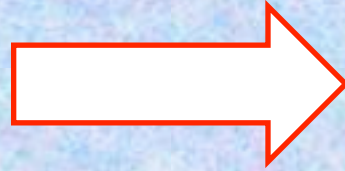
Here is a cryptarithmic puzzle

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$$\begin{array}{r} \text{SATURN} \\ + \text{URANUS} \\ \hline \text{PLANETS} \end{array}$$

Here is a cryptarithmic puzzle

SATURN
+ URANUS
PLANETS



546790
+ 794075
1340865

Here is a cryptarithmic puzzle

$$\begin{array}{r} \text{SATURN} \\ + \text{URANUS} \\ \hline \text{PLANETS} \end{array} \quad \rightarrow \quad \begin{array}{r} 546790 \\ + 794075 \\ \hline 1340865 \end{array}$$

Each letter, where it appears, stands for the same digit

Each digit is represented by only one letter

There should exist a unique solution

CAN PUZZLES BE MADE FROM THE
NAMES OF THE DELEGATES TO
MATHSJAM 2011?

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Limitations

- LENGTH OF FORENAME AND SURNAME MUST DIFFER BY AT MOST ONE LETTER
- NO MORE THAN 10 DIFFERENT LETTERS
- EACH PROBLEM MUST HAS A UNIQUE SOLUTION

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Of the 122 delegates booked on 4th November 2011, I found 38 puzzles with some assumptions about gender and spelling of forenames – here are some of my favourites.

S U Z A N N E
+
M C E N D O O

S U Z A N N E
M C E N D O O +

C A S C A D E S

7523009+6190488=13713497

SANDRA
+
DUFFY

S A N D R A
D U F F Y +

Q U A R K S

382708+74119=456827

SAMUEL
HANSEN⁺

SAMUEL
HANSEN⁺

ANGLES

$$183294+687197=870491$$

JAMES
+
GRIMES

JAMES
GRIMES⁺

CAESAR

81306+429306=510612

CAROL
JONES +

CAROL
JONES +

COSINE

15807+90436=106243

PHILIP
CHAFFE⁺

PHILIP
CHAFFE⁺

SPECIAL

275652+973884=1249536

S I M O N
+
S I N G H

S I M O N
S I N G H⁺

A X I O M S

$$79824+79463=159287$$

COLIN
+
WRIGHT

COLIN
+
WRIGHT

THRILL

61325+742908=804233

That's all
folks

