

ON HONGAN'S QUESTION ABOUT A CAR NUMBER

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Motoshi Hongan is a Japanese mathematician and a professor emeritus in the Tsuyama College of Technology mathematics department. One day, he saw a car with number 2351, and he noticed that $2 + 3 = 5 \times 1$ and $2 \times 3 = 5 + 1$. Later he tried to find all of 4-tuples (a, b, c, d) of numbers such that $a + b = c \times d$ and $a \times b = c + d$. Then he asked me the following question: Is it true such a 4-tuple (a, b, c, d) is $(0, 0, 0, 0)$ or $(2, 2, 2, 2)$ or a suitable row substitute of $(2, 3, 5, 1)$? In this talk, I would like to discuss this topic.