

Multiply 4 Digits by 1 Digit

Louisa, Alfie and Rehan are playing a game. They are multiplying their 4-digit numbers by 6 to see whose answer is closest to 10,000. They each give clues for their 4-digit numbers.



Louisa

The digit sum of my number is 10. My number has a 0 in the ones column and each digit is different.

All of the digits in my number are even, and one digit is 0. The digit sum of my number is less than Louisa's.



Alfie



Rehan

My number has the highest digit sum. Two of my digits are 0s.

Investigate what each of their numbers could be and who could have won the game. Various answers, for example: Louisa could have $1,270 \times 6 = 7,620$; Alfie could have $2,220 \times 6 = 13,320$; Rehan could have $2,009 \times 6 = 12,054$. In this case, Rehan would win.