

Exam given to 5 students.

Scores entered in random order onto a spreadsheet which recalculates average after each number added.

After each score entered, the average was always an integer. The scores were 71, 76, 80, 82, 91. What was the last score entered?

We have

n	$n \pmod 3$
71	2
76	1
80	2
82	1
91	1

The sum of the first three scores must be divisible by 3. The only possibility is 76, 82, 91.

The sum of the First Four scores must be divisible by 4. We have

$$76 + 82 + 91 = 249$$

So we must have 71 as the Fourth score ($249 + 71 = 320 = 4 \times 80$)

Therefore the last score added is

80