

Problem 5 (due Monday, November 9)

Recall that  $\lfloor a \rfloor$  denotes the floor of  $a$ , i.e. the largest integer smaller or equal than  $a$ . What is the smallest possible value of 
$$\left\lfloor \frac{1}{x_1} \right\rfloor + \left\lfloor \frac{1}{x_2} \right\rfloor + \dots + \left\lfloor \frac{1}{x_n} \right\rfloor$$
, where  $x_1, x_2, \dots, x_n$  are positive real numbers such that  $x_1 + \dots + x_n = 1$ ?

Yuqiao Huang is the only person who submitted a solution. His solution is very nice and it is based on a different idea than our solution. Both solutions are discussed in the following link [Solution](#)

From:

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