Problem K. Kalends, Nones, and Ides

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	1024 mebibytes

Calendars were used throughout history, enabling humankind to tell dates. The Roman Calendar had been used by the Romans since the Roman Kingdom, widely believed to have been established by their first king Romulus. There are three important days in each month in the calendar: *Kalends*, textitNones, and *Ides*. Kalends is the first day of each month. Nones and Ides roughly correspond to the seventh and the fifteenth day of each month, but not exactly, since there are also longer and shorter months in each Roman Calendar year. These days seem to have derived from the new, first-quarter, and full moon, respectively, which shaped a Roman's life, as they counted each day relative to these principal days. For example, they would call October 12th as "ante diem quartum Idus", which is translated to "the 4th day before the Ides". Why is it the 4th, you may ask? Because the Romans used inclusive counting, and there are 4 days from the 12th to the 15th inclusively, hence they called it "the 4th day before". Over the centuries, the Roman Calendar has been modified and adapted multiple times. Eventually, it turned into the most common calendar used over the world, the Gregorian calendar. Some of the features are kept, such as the names of the months. Additionally, the current English word "calendar" originated from the Latin word "kalendae" for Kalends.

You might not know Roman culture and astronomy well to understand these ancient calendars. But for the modern ones, thanks to the widespread of the meme picture of Microsoft Excel mis-interpreting 1/2 glass of water as January 2nd glass of water, people now associate dates with arithmetic expressions! For example, the exam from January 18th (1/18) to January 20th (1/20) will be valued as

$$1/18 - 1/20 = \frac{1}{18} - \frac{1}{20} = \frac{1}{180}.$$

There is going to be a programming camp scheduled fully in the year 2025 lasting d days. Fortunately, the exact dates are not decided yet. As people are going to value every event using the weird idea shown above, rescheduling the camp such that the value of the arithmetic expression of the camp is maximized seems like a good idea! However, you may not change the number of days since the contests have been in preparation for quite some time (rejecting problems from diligent, enthusiastic, and passionate problem setters is particularly rude)! Formally, if the camp is scheduled from the b-th day of the a-th month to the y-th day of the x-th month, then its arithmetic value will evaluate to $a/b - x/y$. Note that you may not choose a starting date earlier than January 1st (the first day) of year 2025, nor an ending date later than December 31st (the last day) of year 2025.

Find the maximum arithmetic value among all possible camps in 2025 that last for d days. For your information, the index of each month and the number of days in each month in year 2025 of the Gregorian calendar are as follows:

Index	1	2	3	4	5	6	7	8	9	10	11	12
Days	31	28	31	30	31	30	31	31	30	31	30	31

Input

The input contains an integer d, the duration of the planned camp, on the first and only line ($1 \le d \le 365$).

Output

Output a single line with the maximum arithmetic value among all possible d-day camps in the year 2025.

Your answer will be accepted if the absolute or relative error does not exceed 10^{-6}. Formally, let your answer be a, and the jury's answer be b. Your answer is considered correct if $\frac{|a-b|}{\max(1,|b|)} \le 10^{-6}$.

Examples

standard input	*standard output*
5	9.6
15	11.2