40th Petrozavodsk Programming Camp, Day 5: Almost Retired Dandelion Contest ICPC Training Camp: Common Contest 2, Wednesday, February 3, 2021



Problem L. Extreme Wealth

Input file: standard input
Output file: standard output

Time limit: 3 seconds Memory limit: 256 mebibytes

You have a friend working in casino and you decided to use it to your advantage. You'll play Red or Black exactly R + B times and using your insider you know that exactly R times the ball will fall on Red, while all the other B times the ball will fall on Black.

You are starting with initial capital of 1 and before each spin of the roulette you can take any part of your current money (not necessarily integer) and bet it either on Red or Black. You cannot bet on both in one spin. All the money you don't bet remains with you. If you guess the color correctly you get back double the bet, otherwise you lose the bet.

For what maximal X you can **guarantee** you capital to be at least X at the end of the game (if you play optimally)? If $X > 10^9$, you don't really care about the exact value, so just print "Extreme Wealth".

Input

The only line contains two integers R and B $(0 \le R, B \le 10^{13})$.

Output

Print the maximal value of X if it is not more than 10^9 , otherwise print "Extreme Wealth" (without quotes).

Answer "Extreme Wealth" will be considered correct if the correct value of X is at least $0.99 \cdot 10^9$. Answer X' will be considered correct if the actual value of X is at most $1.01 \cdot 10^9$ and $\frac{|X'-X|}{X} \leq 10^{-6}$.

Examples

standard input	standard output
3 2	3.200000000000
0 29	536870912.000000000000
30 0	Extreme Wealth
37 73	5028.4888595832190