Day 3: Basic Probability Puzzles #6

Points: 98.53 Rank: 21158

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Objective

In this challenge, we practice calculating probability.

Task

Bag X contains 5 white balls and 4 black balls. Bag Y contains 7 white balls and 6 black balls. You draw 1 ball from bag X and, without observing its color, put it into bag Y. Now, if a ball is drawn from bag Y, find the probability that it is black.

Output Format

In the editor below, submit your answer as Plain Text in the form of an irreducible fraction A/B, where A and B are both integers.

Your answer should resemble something like:

```
3/4
```

(This is **NOT** the answer, just a demonstration of the answer format.)

Change Theme Language Python 3

```
# Enter your code here. Read input from STDIN. Print output to STDOUT# Enter your code here
Read input from STDIN. Print output to STDOUT
from fractions import Fraction

white_P = Fraction(5, 9)
black_P = Fraction(4, 9)

black_Pw = Fraction(6, 14)
black_Pb = Fraction(7, 14)

Pb = white_P * black_Pw + black_P * black_Pb
print(Pb)

```

Line: 12 Col: 1

Upload Code as File | Test against custom input | Run Code | Submit Code

Compilation Successful :)

Click the Submit Code button to run your code against all the test cases.

Input (stdin) Download

```
5
6
```

Your Output (stdout)

```
29/63
```