Instructions:
Name your script `hw7.py` and submit it on CCLE. Add comments to each function.

Problem 1:
Use integration in SymPy to write a function named `normalcurve(a,b)` that takes as input two boundaries a, b, and returns the probability that the a standard normal random variable falls in the interval between a and b. Your function should return both a precise answer and a numerical answer.

Test case:

`normalcurve(0,1) should return (erf(sqrt(2)/2)/2, 0.341344746068543).`

Problem 2:
Write a function named `balance(eq)` that balances chemical equations. So, it takes as input strings of the form `"H2+O2=H2O"` into `"2H2+O2=2H2O"`. This function does not need to account for the compounds with parentheses like Pb(OH)4 or Pb(SO4)2.

Test cases:

```
balance("PhCH3 + KMnO4 + H2SO4 = PhCOOH + K2SO4 + MnSO4 + H2O")
should return
"5PhCH3 + 6KMnO4 + 9H2SO4 = 5PhCOOH + 3K2SO4 + 6MnSO4 + 14H2O"

balance("H2O = H2 + O2")
should return
"2H2O = 2H2 + O2"
```