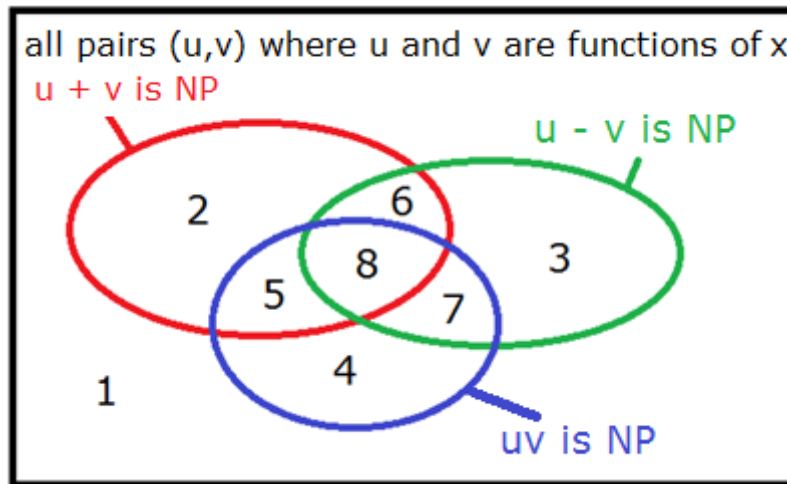


Risp 16: Never Positive

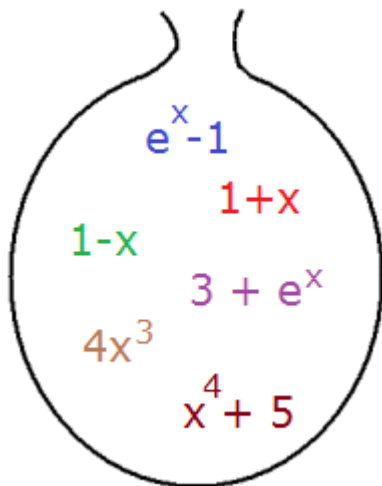
Write down a function that is never positive. Let us call such a function **NP**.
NP means 'either negative or zero.' And another. And another...

If you add two NP functions, is the result NP?
 What if you subtract two NP functions? Multiply? Divide?

Try to find a pair of functions (u, v) for each region below.
Note that u and v do not have to be NP.



Pick any two functions from the bag below,
 and call them u and v .



$$\text{Let } f(x) = \frac{u}{v} \text{ and } g(x) = \frac{v}{u}.$$

Find $f'(x)$ and $g'(x)$.

Show $f'(x) g'(x)$ is NP.

Can you show this will always work, for all functions u and v ?