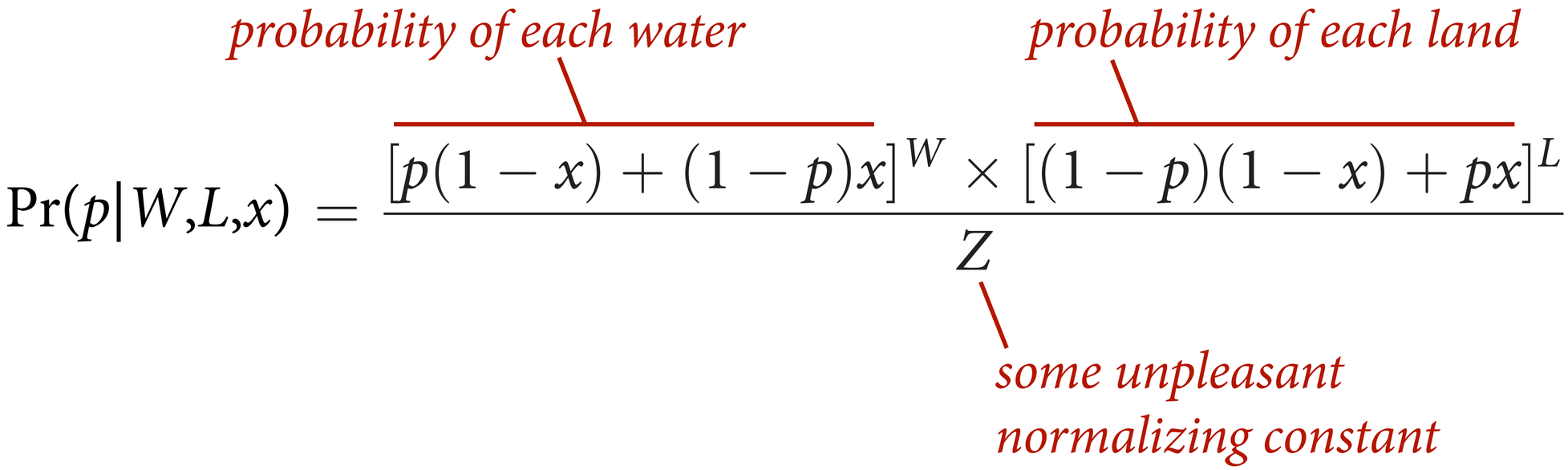
probability of each water
probability of each land
$\Pr(p|W,L,x) = \frac{[p(1-x)+(1-p)x]^W \times [(1-p)(1-x)+px]^L}{Z}$
some unpleasant
normalizing constant