Geometric number of failures, i.e. consider infinite sequence of independent trials, let Y denote the # of failures that occur before the first success (do not include the success itself!).
Assume all trials have probability p of succeeding.
Notice $Y+1$ is a geometric random variable.

So $E(Y) = E((Y+1)-1) = E(Y+1) - 1 = \frac{1}{p} - 1 = \frac{1}{p} - \frac{p}{p} = \frac{1-p}{p}$

$= \boxed{\frac{q}{p}}$

$Var(Y) = Var((Y+1)-1) = Var(Y+1) = \boxed{\frac{q}{p^2}}$

The constant doesn't affect the variance.