

# PHYS 391 - Day 11

# Binomial Distribution

$$B_{n,p}(\nu) = \frac{n!}{\nu!(n-\nu)!} p^\nu (1-p)^{(n-\nu)}$$

$n$  - number of trials

$p$  - probability of success / trial

$\nu$  - number of successes

# Question

- Find the probability to roll 3 “sixes” on five (6-sided) dice
- Bonus: find the probability to roll three-of-a-kind on five dice (this should be easy)