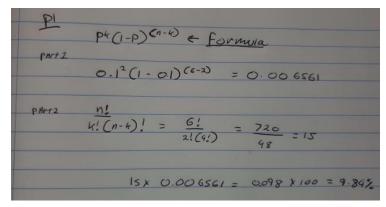
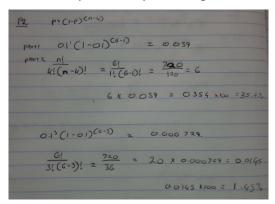
- 1. Suppose you play the game of shooting. You shoot 6 times, each time to a different enemy, and each shot has a 10% chance of success.
- 1) What's the probability of killing two enemies out of six?



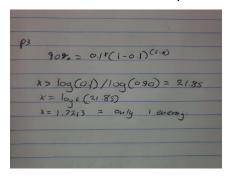
2) What's the probability of killing at most three enemies out of six?



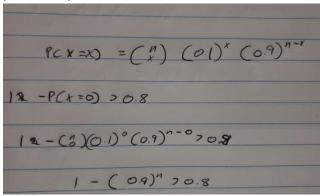
Ans = 9.84 + 35.4 + 1.45 = 46.69%

3) What's the maximum number of enemies we can kill with 90% probability?

Answer: We can kill 1 enemy



2. Suppose there is only one enemy and two success shots can kill the enemy. Each shot has a 10% chance of success. How many times do you need to shoot to kill the enemy with 80% probability?



0.27 (0.9)ⁿ

Solving using loganithms

log(0.2) > log(0.9)ⁿ

log(0.2) > n log(0.9)

10g(0.2) 10g(0.9) > 1 R negative

 $n = \frac{\log(0.2)}{\log(0.9)} = 15.27$ Ans 15