

STATISTICS APPLIED TO BUSINESS

PROFESSOR JOSEMARI SARASOLA

SPECIAL COVID-19 – 2020 MARCH

NORMAL APPROXIMATION TO BINOMIAL (PROBLEMS)

20% of people entering a shop buys something. We think today there will be 1000 people entering the shop.

- 1. On average, how many people will buy something?**
 - 2. How does the no. of buyers distribute?**
 - 3. Explain (don't calculate) how to calculate the probability of having exactly 250 buyers (by means of the binomial distribution).**
 - 4. Calculate by means of the normal distribution the probability of having at least 250 buyers.**
 - 5. How many people should come to the shop if we want the probability of having more than 300 buyers at least 0.9?**
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A goalkeeper saves 15% of penalty shots. After a strong training, she succeed to stop 30 of 100 penalties. Should we state that the training has been effective? Significance level: 10%.