7 Binomial Distribution

Objectives:

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| Understand the conditions necessary for a random variable to have a binomial distribution |
| Calculate probabilities for a binomial distribution |
| Learn the parameters of a binomial distribution |
| Understand how to approximate a real-world scenario as a binomial distribution |

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| Content | Teacher's Activity | Student's Activity | Assignments |
| 7.1 Binomial Distribution | * + Through an example, introduce the terms related to a binomial distribution: number of trials (*n*), success/failure at each trial, probability of success (*p*)/ failure (*f*) at each trial   + C:\EB7C60E5\6563E91F-D90E-4BDE-BA4F-BF5863B4676F_files\image001.png   + C:\EB7C60E5\6563E91F-D90E-4BDE-BA4F-BF5863B4676F_files\image002.png | * + Understand the terms related to a binomial distribution   + C:\EB7C60E5\6563E91F-D90E-4BDE-BA4F-BF5863B4676F_files\image003.png   + C:\EB7C60E5\6563E91F-D90E-4BDE-BA4F-BF5863B4676F_files\image004.png   C:\EB7C60E5\6563E91F-D90E-4BDE-BA4F-BF5863B4676F_files\image005.png | Ex 7A |
| 7.2 Using the binomial distribution as a model | * + Explain the four properties that help identify a probability distribution as a binomial distribution [X ~ B(*n*, *p*) ]   + Through examples, determine if a given distribution is a binomial distribution   + Through examples, explain what assumptions need to be made in order for a given distribution to satisfy the conditions of a binomial distribution | * + Given a distribution, verify if it satisfies the four conditions of a binomial distribution   + Given a situation, state the assumptions that need to be made in order to use the binomial distribution to model it | * + Textbook Examples   + Ex 7B |
| Additional Practice | * + Help students as required to solve the textbook problems | * + Work out additional problems in the Misc Ex | * + Misc Ex 7 |
| Test |  |  | Clubbed with Probability Distribution |