Unit 4: Probability Distributions for Discrete Variables

4.00	Prerequisite Skills			
Learning Goals	I know how to calculate simple probability	1	2	3
	I know how to calculate mutually exclusive events	1	2	3
	I know how to distinguish independent and dependent events	1	2	3
	I know how to calculate combinations	1	2	3
	I know how to evaluate expressions	1	2	3
	I know how to use the binomial theorem	1	2	3
	I know how to graph a histogram	1	2	3
4.10	**Probability Distributions**			
Learning Goals	I can recognise and identify a discrete random variable.	1	2	3
	I can generate a probability distribution by calculating the probabilities for all values of a random variable.	1	2	3
	I can represent a probability distribution using a table and a probability histogram.	1	2	3
	I can make connections between the frequency histogram and the probability distribution.	1	2	3
	I can calculate and interpret the expected value for a probability distribution.	1	2	3
	I can make connections between the expected value and the weighted mean of the values of the discrete random variable.	1	2	3
4.20	**Uniform Distributions**			
Learning Goals	I can solve problems involving uniform probability distributions.	1	2	3
4.30	**Binomial Distributions**			
Learning Goals	I can recognise conditions that give rise to a binomial probability distribution.	1	2	3
	I can make connections among the table, histogram, and algebraic representation of a binomial probability distributions.	1	2	3
	I can solve problems involving binomial probability distributions.	1	2	3
4.40	**Hypergeometric Distributions**			
Learning Goals	I can recognise conditions that give rise to a hypergeometric distribution.	1	2	3
	I can calculate the probability associated with each random variable of a hypergeometric distribution.	1	2	3
	I can represent the hypergeometric distribution using a table and a probability histogram.	1	2	3
	I can solve problems involving hypergeometric probability distributions.	1	2	3
4.50	**Comparing and Selecting Discrete Probability Distributions**			
Learning Goals	I can compare the probability distributions of discrete random variables.	1	2	3
	I can solve problems involving uniform, binomial, and hypergeometric distributions.	1	2	3

4.60	Review
4.65	Extra Review (if necessary)
4.70	Test

After each lesson grade yourself from one to three on each learning goal based on the criteria below. This will help you to build a review plan for the end of unit assessment.

1. I need extra help with this concept

2. I need more practice with this concept

3. I can teach this concept to someone else

Unit 4 – Probability Distributions for Discrete Variables

4.00 – MHR Page 142 #s 1 – 13

4.10 – MHR Page 151 #s 1 – 7 & 9

4.20 – MHR Page 157 #s 1 – 8

4.30 – MHR Page 167 #s 1 – 3 & 5 – 9

4.40 – MHR Page 178 #s 1 – 7, 9 & 10

4.50 – MHR Page 185 #s 1 – 8

4.60 – MHR Page 188 #s 1 – 14

4.65 – MHR Page 190 #s 1 – 16

4.70 – **TEST – Probability Distributions for Discrete Distributions**