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Excursions in
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C O R R E L A T E D T O

North Carolina Essential Standards Draft for Discrete Math

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Correlated to:
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Discrete Mathematics Essential Standards (3/26/09)	
Discrete Mathematics	
A.D.1 Use recursion to model and solve problems.	
A.D.1.a Find the sum of a finite sequence.	SE/TE: 477-480
A.D.1.b Find the sum of an infinite sequence.	SE/TE: 480-483
A.D.1.c Determine whether a given series converges or diverges.	SE/TE: 474-479, 481-483
A.D.1.d Write explicit definitions using iterative processes, including finite differences and arithmetic and geometric formulas.	SE/TE: 474-479, 481-483
A.D.1.e Verify an explicit definition with inductive proof.	SE/TE: 249-250, 256
A.D.2 Use matrices to model and solve problems.	
A.D.2.a Display and interpret data.	SE/TE: 173-176, 178-180
A.D.2.b Write and evaluate matrix expressions to solve problems.	SE/TE: 200
A.D.3 Use graph theory to model relationships and solve problems.	SE/TE: 171-173, 176-177, 185-188
S.D.1 Describe data to solve problems.	
S.D.1.a Apply and compare methods of data collection.	SE/TE: 499-503, 505-506, 509-513
S.D.1.b Apply statistical principles and methods in sample surveys.	SE/TE: 499-501, 503-506, 508-512
S.D.1.c Determine measures of central tendency and spread.	SE/TE: 153-156, 533-534, 536-538, 540-541, 591, 595-596
S.D.1.d Recognize, define, and use the normal distribution curve.	SE/TE: 588-591, 594-599
S.D.1.e Interpret graphical displays of data.	SE/TE: 527-528, 530-533, 539-540, 588-591
S.D.1.f Compare distributions of data.	SE/TE: 527-529, 539-540, 588-592, 596-598
S.D.2 Use theoretical and experimental probability to model and solve problems.	
S.D.2.a Use addition and multiplication principles.	SE/TE: 59, 565-568, 570-572, 577
S.D.2.b Calculate and apply permutations and combinations.	SE/TE: 562-565
S.D.2.c Create and use simulations for probability models.	SE/TE: 558-560, 596-597, 599-600
S.D.2.d Find expected values and determine fairness.	SE/TE: 614-620
S.D.2.e Identify and use discrete random variables to solve problems.	SE/TE: 529, 596-597, 599-602
S.D.2.f Apply the Binomial Theorem.	SE/TE: 567-568, 589-593, 595-600
S.D.3 Model and solve problems involving fair outcomes:	
S.D.3.a Apportionment	SE/TE: 124-127, 128-133, 134-140, 142-143
S.D.3.b Election Theory	SE/TE: 4-7, 10-13, 16-20, 22-25, 27
S.D.3.c Voting Power	SE/TE: 44-45, 47-50, 55-59, 63-64

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S.D.3.d Fair Division	SE/TE: 78-80, 82-85, 87-89, 90-93, 95-96, 97-100