

# **Discrete Mathematics**

## **Counting and Probability**

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# Probability of Union of Events

## Counting Union of Sets

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**Example.** Of the 100 college students in an orientation, 68 need to take math, 62 need to take writing, and 55 need to take both math and writing. How many students need to take math or writing?

## Probability of Unions of Events

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**Example.** Of the college students in an orientation, 68% need to take math, 62% need to take writing, and 55% need to take both math and writing. Randomly choose a student at the orientation. What is the probability that he/she needs to take math or writing?



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Multiple copies of files are stored around the network. Suppose that three copies of file A and three copies of file B are stored at different locations in a network of 30 computers. Assume that 6 random computers fail.

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