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# This is the title of the template report

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Firstname Lastname

December 11, 2014

$$\begin{aligned}
Pr[a_\ell \text{ is the final } s] &= Pr[a_\ell \text{ is chosen as } s] \cdot \prod_{i=\ell+1}^m Pr[a_i \text{ does not replace } a_\ell \text{ as } s] \\
&= \frac{1}{\ell} \cdot \prod_{i=\ell+1}^m \left(1 - \frac{1}{i}\right) \\
&= \frac{1}{\ell} \cdot \prod_{i=\ell+1}^m \frac{1-i}{i} \\
&= \frac{1}{m}
\end{aligned} \tag{0.1}$$

## 1 HEADING ON LEVEL 1 (SECTION)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus:

$$\begin{aligned}(x+y)^3 &= (x+y)^2(x+y) \\ &= (x^2 + 2xy + y^2)(x+y) \\ &= (x^3 + 2x^2y + xy^2) + (x^2y + 2xy^2 + y^3) \\ &= x^3 + 3x^2y + 3xy^2 + y^3\end{aligned}\tag{1.1}$$

Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies

### 1.1 HEADING ON LEVEL 2 (SUBSECTION)

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

$$A = \begin{bmatrix} A_{11} & A_{21} \\ A_{21} & A_{22} \end{bmatrix}\tag{1.2}$$

Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem.

#### 1.1.1 HEADING ON LEVEL 3 (SUBSUBSECTION)

Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim.

HEADING ON LEVEL 4 (PARAGRAPH) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim.

## 2 LISTS

### 2.1 EXAMPLE FOR LIST (3\*ITEMIZE)

- First item in a list

- First item in a list
  - \* First item in a list
  - \* Second item in a list
- Second item in a list
- Second item in a list

## 2.2 EXAMPLE FOR LIST (ENUMERATE)

1. First item in a list
2. Second item in a list
3. Third item in a list