

# LaTeX requires a little effort

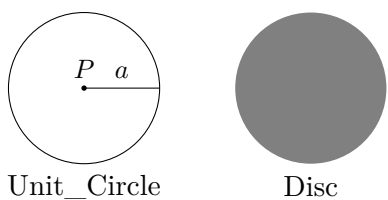
## Table of contents

<b>Drawing diagrams in LaTeX</b>	<b>1</b>
TikZ . . . . .	1
<b>LaTeX</b>	<b>1</b>
<b>K Means Clustering in Python</b>	<b>2</b>
Penguins clusters . . . . .	2
<b>References</b>	<b>2</b>

## Drawing diagrams in LaTeX

### TikZ

TikZ is incredibly powerful and flexible, here's an [example diagram from a StackOverflow question](#).



### LaTeX

Be cautious of  $\LaTeX$  control characters like  $\%$   $\$$   $\#$   $\_$   $($   $)$

## K Means Clustering in Python

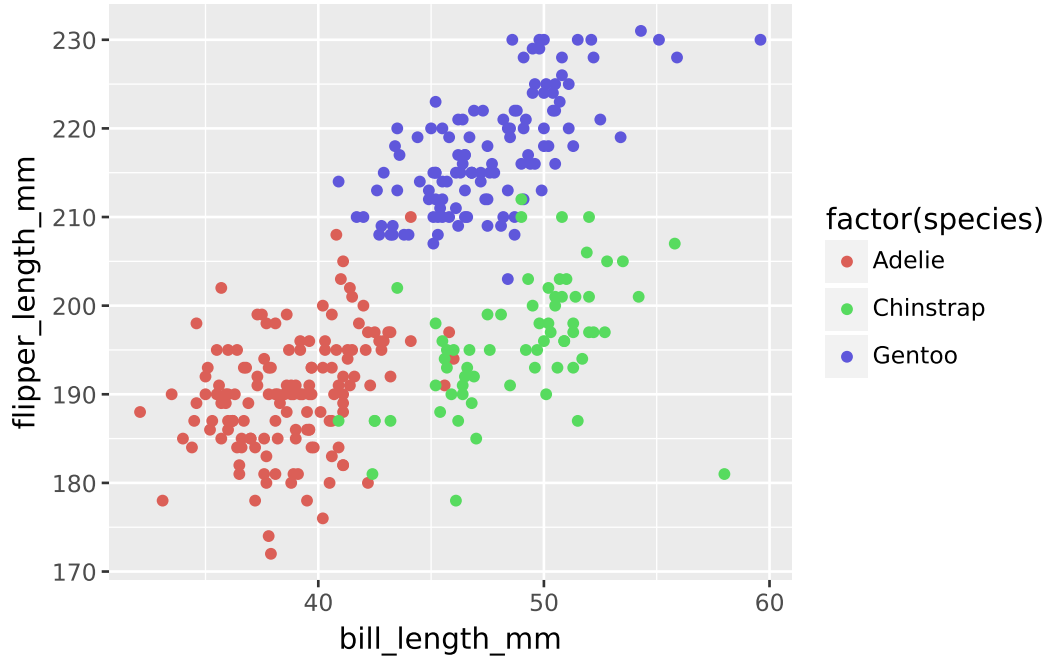
The scikit-learn library (PedregosaFabian et al. 2011) contains an implementation of the k-means clustering method.

One of the important equations in k-means clustering is shown below Equation 1.

$$\arg \min_{\mathbf{S}} \sum_{i=1}^k \frac{1}{|S_i|} \sum_{\mathbf{x}, \mathbf{y} \in S_i} \|\mathbf{x} - \mathbf{y}\|^2 \quad (1)$$

### Penguins clusters

The Palmer Penguins dataset is a great tool for showing how k-means clustering performs.



## References

PedregosaFabian, VaroquauxGaël, GramfortAlexandre, MichelVincent, ThirionBertrand, GriselOlivier, BlondelMathieu, et al. 2011. “Scikit-Learn: Machine Learning in Python.” *The Journal of Machine Learning Research*, November. <https://doi.org/10.5555/1953048.2078195>.