- ## Inserting a Calculator Symbol

We need to use an extra package. `\usepackage{tikz,pgfplots}`
Then copy the following code before the `\begin{document}`.

```
\newcommand\calculator{\tikz{
                \node (c) [inner sep=0pt, draw, fill=black, anchor=south
west]{\phantom{N}};
                \begin{scope}[x=(c.south east),y=(c.north west)]
\fill[white] (.1,.7) rectangle (.9,.9);
                \foreach \x in {.1, .33, .55, .79}{
                \foreach \y in {.1, .24, .38, .53}{
                \fill[white] (\x,\y) rectangle +(.11,.07);}}
                \end{scope} }}
                \def\calcicon#1{\noindent#1 \calculator\ }
```

Now wherever you need to insert a calculator, write \calculator\

- ## Inserting an Image

Keep the image in the same folder where you have saved the latex file.
Use a new package `\usepackage{graphicx}`
Then use code `\includegraphics[width=0.4\textwidth]{limit}\\` wherever you want to insert the image. The name of the image file in this case was 'limit.png'. You do not need to mention the file extension, if you wish, you could have added .png
You can also specify the height at the same time by adding `height=0.5` after specifying the width.
Without specifying the width and the height explicitly, you can also adjust the scale of the image by writing the code as `\includegraphics[scale=1]{limit}\\`
You can also keep the image in a figure environment and keep it at the centre of the page in PDF and add captions. The codes are as follows.

```
\begin{figure}[H]
\centering
\includegraphics[width=0.4\textwidth]{limit}\\
\caption{The Squeeze Theorem}
\end{figure}
```

The [H] is used here to ensure that the image displays in the PDF right where you want it to display. Otherwise the complier will adjust it to where it thinks best and sometimes that may hamper the relevancy of the picture. You may also use [t] or [b] to adjust the picture at the top of the page or at the bottom of the page.
The above is for offline latex softwares.
For online softwares like overleaf, you have to upload the picture. There is an upload button at the top left corner of the overleaf interface.

- Writing Bengali Font

Watch: https://www.youtube.com/watch?v=VApG6xB5lXQ
Akash font download link:: https://www.dafontfree.net/akaash-normal/f93455.htm
Or go to computertricksandhelps@gmail.com and search by the title "How to Write Bangla in Latex Using Overleaf || 2022"
Or go to https://drive.google.com/file/d/1MusfuwJ3RQMxabZ63Q9X9wgArDtD9e3n/view?usp=sharing

- Elements are automatically italized in mathmode. To avoid this, use \mathrm{_}.

Calculus Notations

- Limits

\lim\limits_{x \to a}

↳ output as ↓

$\lim\limits_{x \to a}$

'\limits' is important. Otherwise if you write the code as '\lim_{x \to a}' it will display → '$\lim_{x \to a}$'.

'x→a' will not be properly underneath the 'lim'.

$\lim\limits_{x \to a^+} f(x)$

↓ output

$$\lim_{x \to a^+} f(x)$$

✓

- use '\displaystyle' to give fractions or conjested parts a better look.
- $\int \sin x \, dx$

↳ $\int \sin x \, dx$

without this \, x and dx will be together in the output.

- Using \int only, will result in a smaller integral symbol. To have an enlarged integral symbol, use

$\displaystyle{\int \sin x \, dx}$

↳ $\displaystyle\int \sin x \, dx$

- For definite integration

⇒ $\int_a^b$ → $\int_a^b$

⇒ $\int\limits_a^b$ → $\displaystyle\int_a^b$

To have bigger integral symbol, wrap it with \displaystyle{_}

- Result of a definite integration

we often need to write

$$\int_a^b x^2\,dx = \left[\frac{x^3}{3}\right]_a^b$$

To write the square bracked and then to apply the limits write code as `\left[\frac{x^3}{3}\right]_a^b`

To automatically adjust the size of the brackets.

- $\sum\limits_{i=1}^n$

↳ $\sum_{i=1}^{n}$

To have bigger Sigma (Σ) symbol, wrap it with '\displaystyle'.