\[
\begin{align*}
2^8 \times 2^{\frac{2}{4}} + 7 &= 2^9 \\
&= 2 \times 64^{\frac{1}{4}} + 7 \\
&= 2 \times \sqrt[4]{64} + 7 \\
&= 2 \times 4 + 7 \\
&= 8 + 7 \\
&= 15 \quad \text{(rewritten)} \\
32 + 7 &= 39
\end{align*}
\]
Order of Precedence:

- Use () only to change the normal order of operations.

\[
3 + 5 \times 10 = 53
\]
\[
3 + (5 \times 10) \times \text{wrong.}
\]
\[
\sqrt{(3 + 5) \times 10} = 80 \text{ (ok.)}
\]
\[
((3 + 5) \times 10) = 80 \times \text{wrong.}
\]
- Do use () when you need to change order of operation.
Single variable name.

\[ x_{\text{new}} = 7 \]
\[ x \circ \text{new} = 7 \times x \]
\[ 3x = 7 \times x \]
\[ x^3 = 7 \]

Valid Matlab expression.

Variable names:
1. Must start with a letter.
2. Case sensitive.
3. No spaces.
4. Contains no mathematical operators.
   \[ x-2 \times \]
   \[ x_2 \text{ ok.} \]
5. Names not already in Matlab.

myprog[LJ.m]
C:\documents and Settings\your user name\My Documents.

It will be deleted when you log out.
% Script files: <filename>.m
% Contains Matlab commands.
% filename.m - keyword
% short summary of what it does.
% list all inputs with their units.
% " " " outputs " "
% Other important information.
% Name, sec No., team, Assignment, Date.

Start writing commands
Relational Operators / Logical Expressions

Checks true/false.
Are NOT assignment statements.

\[ a > b \quad -- \text{assignment statement} \]
\[ a == b \quad -- \text{logical statement} \]

\[ a = 2 \]
\[ \text{if} (a == 0) \]
\[ \text{disp ('Enter value for } a') \]
\[ \text{else} \]
\[ x = 2/a \]
\[ \text{end} \]