

Interesting Project

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1 Typing Text

It's easy to write text. Just type it in. You must add an empty line to create a new paragraph otherwise L^AT_EX continues on the same line.

Du kan også skrive på *norsk* hvis du vill. Da må du bruke rett tegnsett i dokumentet (utf-8).

1.1 An example of subsection

One can also make numbered lists¹:

1. here goes the first item
2. and here goes the second
3. but you can have as many as you like

You may also refer to other sections like this: [section 2](#).

2 Typing Formulas

Typing formulas is a little harder. Here's how you type in a standard math expression: $c = \sqrt{a^2 + b^2}$. But there are more advanced formulas

$$e^{i\pi} + 1 = 0.$$

Note that standard math expressions are commands in L^AT_EX. For example, you write $\sin x$ in order to get the right type-setting of the sine function. Standard functions and reserved variables are typed in *roman*. That's why we have typed the number e and the imaginary unit i in roman above. If you type *e* and *i* they come out in *italics*. That's the normal font for **variables**, which you simply enter as *x*, *y* or *z*.

¹and automatically numbered footnotes

Some editors, like **WinEdt**, have built-in interfaces to L^AT_EX, and you can click any symbol like Greek letters α , β ... and math symbols too, like $\sum_{k=0}^N 1/k^2$.

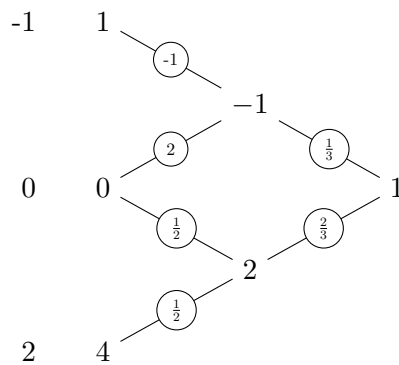
You can also write equation systems:

$$\begin{aligned} 2x + 3y &= 0 \\ x - 2y &= 3. \end{aligned}$$

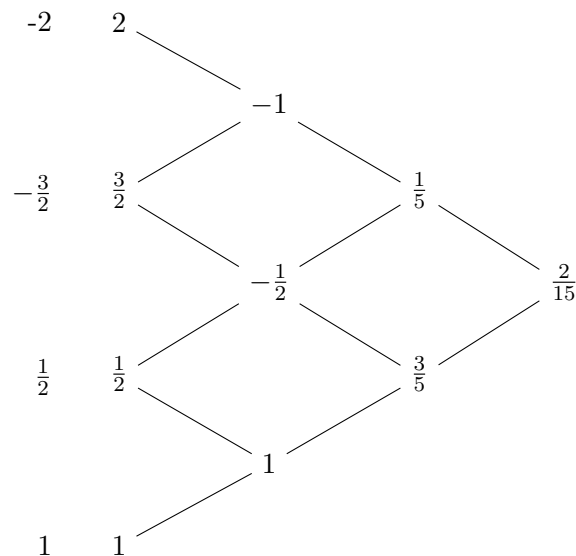
3 Some Pyramid Algorithms

Here is an example interpolating the points

x	-1	0	2
y	1	0	4



And an example of divided differences:



See **Figure 1** for an interesting graph.

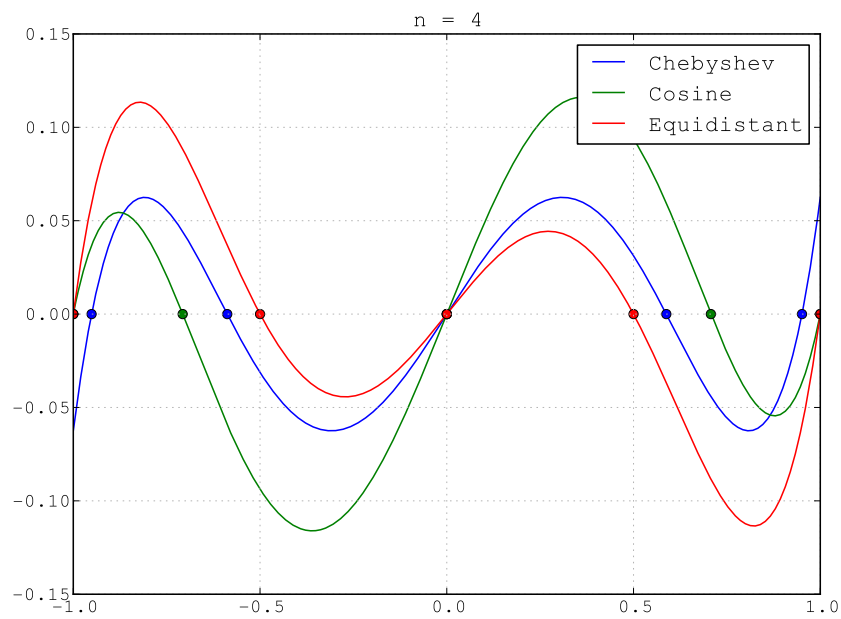


Figure 1: A very interesting graph.

4 Code

You may also write small code snippets.

An example of Python code:

```
def f(x):
    return x**2
```

Some Matlab code:

```
x = 3
```