

# Day #5: lists

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Sometimes it is useful to list information. For example,

- Computer Science
- Actuarial science
- Mathematics
  - Calculus
    - \* Limits
    - \* Derivatives
    - \* Integrals
    - \* Applications
  - FOAM (Foundations of Advanced Mathematics)
  - Differential Equations
  - History of Mathematics
- Statistics
- Philosophy

We can also number things. For example,

1. For  $f(x) = x^2$ , find  $f'(x)$  using,
  - (a) the limit definition of the derivative
  - (b) the power rule
2. Consider the expression  $t^{2^2}$  or  $t^{2^2}$ . I think the first one is the best way to do this. Alternatively we could write this as  $(t^2)^2$ . Doing this any less carefully results in a “double superscript” error.

For curiosity we can manually change symbols,

† this is a “dagger” symbol

‡ this is a “double dagger” symbol

○ this is a ‘circ’ symbol, which looks like one of the itemize options already

In writing proofs, we often need to organize our ideas very carefully. For example in proof by cases, as follows

**$n$  is even.**

some calculations

I can add more text here. I can add more text here. I can add more text here.

I can add more text here. I can add more text here.

**$n$  is odd.** some more calculations

How to override spacing.

**with the quad command**

text goes below

**with the slash-comma trick**

text goes below

**with the phantom command**

text goes below

**with your own trick** I don't know what this is figure it out yourself.

To work on a resume, we could organize with a list.

**Education**

**Employment History**

**Volunteer and Service**

**Awards and Honors**

**Skills and Certifications** L<sup>A</sup>T<sub>E</sub>X, python (beginner), R (intermediate), sage, Microsoft Office

**References** Technically *not* part of the resumé, but provided alongside as a separate document