## LaTex Help by Example

The "LaTex Help by Example" items will help you LaTexing your homework. If you have to do something similar when your LaTexing your homework, just compare the Example LaTex code to the complied output.

## How to tag and label displayed formulas.

Let's create a simple formula without a tag (i.e. without a number). For this we use a *.

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

Now to get a *tag* (i.e., a number), just omit that *.

$$\sin \pi = 0. \tag{1}$$

Now let's create a *label* for a tagged formula that we want to refer to later (we will refer back using the *label* we created).

$$\cos \pi = -1. \tag{2}$$

Now look at the LaTex to see how we can can get the tag number for the above equation to automatically show up: So by (2) we see that $\cos^2 \pi = 1$.

**Warning**. You might have to compile the LaTex code twice for reference numbers to show up.

**Warning**. If you rearrange your LaTex file, LaTex will automatically renumber your displayed formulas in numerical order. So it is **highly suggested** that you *label* your displayed formulas and refer back to them using the *eqref* in case you decide to reorder your proof after you write it up, reread it, and see that it needs reording. By using the *eqref*, Latex will automatically make the reordering new tag apprear correctly. Otherwise, in order to avoid loosing points, you would have to go back into you LaTex file and change all the numbering by hand.