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This project will be due on **Monday, 19 November 2007** in class. No late projects will be accepted. This project is worth 20% of your grade. Therefore, you should work on this project as the semester progresses. This project will collect all of the information you have gained about your pet knot throughout the course. The format of the final report is open - you should just have fun putting all of the required information together!

The project will be graded on completeness, creativity, and accuracy. In other words, you should accurately convey information that you have learned in a creative way, ensuring that you include all required information. Part of your grade includes having appropriate work to convince the reader that the invariants you have calculated are correct. Another part of your grade is given for presenting the material in a coherent and creative manner.

The report must include:

- A projection of the knot
- The unknotting number of the knot, including all work needed to convince the reader that you have found the unknotting number
- Whether or not your knot is tricolorable, including all work needed to convince the reader that you have examined tricolorability
- A  $p$ -coloration for your knot, including all work...
- The Dowker notation for your knot, including all work...
- Conway notation for your knot, including all work...
- The bridge number of your knot, including all work ...
- The genus and canonical genus of your knot, including all work...
- The crossing number of your knot, including....
- Whether or not your knot is a torus knot....
- The Alexander polynomial for your knot, including....
- the HOMFLY polynomial for your knot, including....
- Whether or not your knot is Celtic...
- Other items as discussed throughout the semester

Remember, this list may be expanded as the semester progresses.