

# V63.0123-1 : Calculus III. Homework 1

due Wed Jan 29 at lecture

## 11.1:

- 6.
- 7.
- 13.
- 14.
- 38. Please give an implicit formula for the curve too (*i.e.* eliminate the parameter).

## 11.2:

- 5.
- 18.
- 28. It will help to sketch the graph first, and be careful about removing the periodicity.
- 42. Hint: You can either use the parametric formulation given in the previous question (you may need to rotate your book to use the area formula as given!), or you can (less tediously) figure out the area due to unwinding by angle  $d\theta$ .

## 11.3:

- 3.
- 8.
- 18.
- 24.