

For DPhil Broadening for C2.6 Schemes

I've picked the following 7 sub-parts of the homework exercises from the course page:
<https://courses.maths.ox.ac.uk/node/42487/materials>

Let's say hand in is by end of April (if you need more time, just let me know).
By hand in I mean: please send me via email in PDF format your scanned hand-written or latexed solutions.

Sheet 1

1 (ii) the constant sheaf is actually the sheaf of locally constant functions

3 (i) generic points

Sheet 2

1 (i) building P^n by gluing

6 (ii) deformation $xy=t$

Sheet 3

2 (ii) $A^2 \setminus \{0\}$ is a variety but is not affine

Sheet 4

1 (vi) failure of surjectivity of \exp

5 (iii) ideal sheaves in P^1

Best

Alex