1. This was generally well done. In (d) many candidates did not identify the area correctly on their sketch; in (e), few plotted the cusped shape of the curve correctly, noting the information available from (b) about behaviour near the origin.

2. (a,b) are bookwork but these results were not reproduced well. In (c) students forgot to include both branches of the parabola \(f_y=0\) in their sketch. (f) can be solved directly by using the constraint to reduce the problem to minimisation of a function of one variable, but this route was not widely followed.

3. This was well done in general, particularly (b). However in (d) only a minority of students completed the calculation successfully.

4. Generally well done, apart from some imaginative attempts to integrate the divergent integral (b).

5. This was well done on the whole, with students using the connections between the different sections of the question.