

1. – (graded) Suppose g and h are functions of one variable. Find the Gaussian and mean curvatures of the surface $M : z = g(x) + h(y)$ and find a necessary and sufficient condition for M to be flat.

2. – (graded) p.223 – 5.

3. – (graded) p.223 – 6.

4. – (graded) p.230 – 1.

5. – (graded) p.238 – 2ab. (You should do this “analytically” for sure and (if you can) geometrically.)

6. – (bonus) p. 223 – 8.

7. – (bonus) p. 225 – 17.