1. p. 36, problems 14, 17

2. p. 37, problems 18

3. p. 37, problems 19, 20, 21

4. p. 61, problems 1, 2 (a), 3, 5

5. p. 62, problems 6 (what’s the connection with cross products?), 7

6. problem 9 (draw a picture!), 10 (note the word ‘unit’ in the problem)

7. Let $P = (1, 1, 0)$ and $v = (-1, 1, 0)$ and $w = (2, 0, 1)$. Furthermore let $Q = (2, 3, -2)$.
   (a) Sketch the plane given by the point $P$ with direction vectors $v$ and $w$.
   (b) Determine whether $Q$ lies on the plane.