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**Homework 2, due Friday 2/27**

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