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**Homework 9 due Friday 4/1**

1. Read p. 148–146 and 223–238 in the book (you can skip the proofs).
2. (8 points) p. 163, review exercises 1, 2, 3, 6, 8, 9, 10, 14
3. (4 points) p. 201, review exercises 1, 3, 4, 5
4. (8 points) p. 270, review exercises 1, 2, 4, 5
5. (10 points) p. 271, Problem K–1
6. (10 points) p. 271, Problem K–2 (c)
7. (10 points) Do rectangles exist in the Poincaré model? Justify your answer.
8. (a) (5 points) Give an example on a sphere with angle sum less more than 250 degrees.  
(b) (5 points) Where would you find a triangle on a sphere with angle sum less than 181 degrees?
9. (a) (5 points) In the Poincaré disk model give an example of a triangle with angle sum less than 60 degrees.  
(b) (5 points) In the Poincaré disk model, how would you find a triangle with angle sum more than 179 degrees?  
(c) (5 points) What is the range of angle sums of a triangle in the Poincaré disk model.