

## 18.06 PROBLEM SET 9

due Thursday, November 20, 2014, before 4:00 pm (sharp deadline) in Room E17-131

Please note that the problems listed below are out of the 4th edition of the textbook. Please make sure to check that you are doing the correct problems.

**Problem 1.** Section 6.4, Problem 4, page 338.

**Problem 2.** Section 6.4, Problem 6, page 338.

**Problem 3.** Section 6.4, Problem 9, page 338.

**Problem 4.** Section 6.4, Problem 18, page 339.

**Problem 5.** Section 6.5, Problem 1, page 350.

**Problem 6.** Section 6.5, Problem 5, page 350.

**Problem 7.** Section 6.5, Problem 6, page 350.

**Problem 8.** Section 6.5, Problem 15, page 351. (Clarification: In this problem you need to explain why the sum of two positive definite matrices is positive definite.)

**Problem 9.** Section 6.5, Problem 26, page 353.

**Problem 10.** Section 6.6, Problem 2, page 360.

**Problem C.** (Optional computational problem. No credit.) Available at  
<http://web.mit.edu/18.06/www/Fall14/ps9c.pdf>