Chapter 20 (lecture 2 - 17 - 10 only!) readings and exercises (due together with Chapter 21 exercises in recitation 2-23-10).

Look carefully at the panel at the top of pg. 513, the definition of z in the bottom panel of that page, and the way the P-value is calculated in the panel at the bottom of pg. 514 (see how the red region is placed at the left tail just as the alternative hypothesis is to the left of the null hypothesis).

pg. 527-528 #7, 8, 11, 12, 13.

Note: For the following problems calculate the z-score $z = (\hat{p} - p_0)/\sqrt{p_0 q_0 / n}$ for your data. The P-value is the probability that a z-score is more extreme than your z-score. "More extreme" is in the sense of departure from the null hypothesis in the direction of the alternative hypothesis.

pg. 528 # 13.

pg. 529 # 21, 24.

pg. 529 # 25 (caution: multiple births are more likely if the mothers are taking fertility medicine, so a single hospital might be very much unlike the general hospital in respect of the chances of twins).

pg. 529 #26.