1. Question 8 on page 681 of the textbook, all parts. (Hint: to figure out where the inverse demand curve meets the marginal cost curve, set them equal to each other and solve!)

(a) Most people would call this arrangement fair since each company has to reduce their pollution for the same amount. It’s debateable what “fair” actually means though.

(b) Once we take into account cost of abatement, most people would probably call the fair arrangement the one where each company spends and equal amount of money on pollution abatement.

(c) It’s always cheaper for XL to reduce their pollution instead of IPSP since their marginal cost of pollution reduction is always lower, so the cheapest thing to do would be to make XL reduce their pollution by 10 tons and not make IPSP do anything.

(d) (a) XL will sell and IPSP will buy because it always costs IPSP more to reduce pollution than XL.

(b) Lowest price = $50

(c) Highest price = $100

(d) At these prices XL will sell as many permits as IPSP will buy since they make money if the price is above $50, which must be 5 since IPSP needs 5 more permits to cover the amount of pollution they’re emitting. IPSP will buy all 5 since the price is below $100. So XL will reduce their pollution by 10 tons and IPSP will buy 5 permits from XL.