6.2 The Pigeonhole Principle

6.2 pg 405 # 1

Show that in any set of six classes, each meeting regularly once a week on a particular day of the week, there must be two that meet on the same day, assuming that no classes are held on weekends.

6.2 pg 405 # 5

Show that among any group of five (not necessarily consecutive) integers, there are two with the same remainder when divided by 4.

6.2 pg 406 # 35

There are 38 different time periods during which classes at a university can be scheduled. If there are 677 different classes, how many different rooms will be needed?