QUESTIONS DISCUSSED IN CLASS

$$D = 141 - 0.16p$$
$$S = 64 + 0.28p$$

8. The set of equations above describes how the supply, S, and demand, D, for a computer memory chip depends on market price. If p represents the price in dollars for each lot of 10 memory chips, for what dollar price per memory chip does supply equal demand?

12. A gardener is planting two types of trees:

   - Type A is three feet tall and grows at a rate of 15 inches per year.
   - Type B is five feet tall and grows at a rate of 9 inches per year.

   How many years will it take for these trees to grow to the same height?

14. An animal shelter spends $2.35 per day to care for each cat and $5.50 per day to care for each dog. If $89.50 is spent caring for a total of 22 cats and dogs, how much was spent on caring for all of the cats?

$$r = 2.24 + 0.06x$$
$$p = 2.89 + 0.10x$$

15. In the equations above, r and p represent the price per gallon, in dollars, of regular and premium grades of gasoline, respectively, x months after January 1 of last year. What was the cost per gallon, in dollars, of premium gasoline for the month in which the per gallon price of premium exceeded the per gallon price of regular by $0.93?