

(1) [8 points] A candy company sells candies for \$8 per box. Each box contains 50 candies and is made up of two varieties of candies. Variety *A* costs \$0.10 per candy to produce, while variety *B* costs \$0.20 per candy to produce. How many of each variety should a box of candies contain so that the production cost per box equals the sale price?

(2) [7 points] The supply equation for a good is $S = 2p + 5$. At price $p = \$1$ the demand is $D = 19$. Assuming a linear demand equation and a market price of $p = \$3$, determine the demand equation.