<u>Firm</u> Wages w_m and w_b to mediocre (m) and brilliant (b) programmers, hires L_m and L_b hours of each, and produces

$$f(L_m + 10 L_b),$$ p is the price programs

quality-adjusted hours

The firm's profit function is

$$\pi(p; w_b, w_m) = \max_{L_m, L_b} p f(L_m + 10 L_b) - w_b L_b - w_m L_m$$

<u>households</u> Household $h \in \{b, m\}$ choose consumption c_h and hours l_h to solve

$$\max_{c_h, l_h} u(c_h, l_h)$$

$$\text{s.t.} \quad p c_h = w_h l_h + \frac{\pi(p; w_b, w_m)}{2}.$$

<u>equilibrium</u> Prices (p, w_m, w_b) and quantities $(c_b, c_m, l_b, l_m, L_b, L_m)$ constitute an equilibrium if the quantities solve the problems above and all markets clear:

$$c_m + c_b = f(L_m + 10 L_b),$$

$$L_b = l_b,$$

$$L_m = l_m.$$