*32b. If the price of the product the firm sells falls to $1, find the new employment level.

*32c. Suppose that at the employment level found in 28a, the firm only paid the workers a money wage of $20 because it was recovering an earlier investment in specific training. Find the new employment level when the product price falls to $1.

### Applications

#### Effects of Equal Pay Laws

33. Consider a firm that incurs expenditures for specific training in the current period equal to 3,000 per worker in real terms. During the training period, workers and the firm share the cost of training. The firm pays its workers a real wage of 10,500 and their marginal product is 11,000. Next year, after the training is over, the marginal product is expected to rise to 16,000, and then to 17,000 the year after that. The interest rate is 6%.

33a. Robin, a college senior, applies for the job and promises to stay two years after the training program is complete. Robin has other offers to work at 11,500, but they do not offer any training. If the firm wanted to recover all its training costs by the time Robin leaves, what would be the maximum wage it could offer in the post-training years? Assume an equal wage in the years following training.

33b. Would the firm be likely to attract Robin with this offer?

33c. A short time later, Ann also applies to this firm. She is a comparable applicant in all ways except that she plans to stay only one year after training is complete. What would be the maximum wage the firm could offer Ann in the post-training year if they want to recover their training investment?

33d. Assuming she has had offers similar to those made to Robin, would the firm be likely to attract Ann with its offer?

33e. Suppose the firm is required by law to pay workers who do comparable jobs the same wage. Discuss the likely effects on Ann.

#### Effects of Minimum Wage Laws

34. In April 1990, a lower minimum wage was instituted for teenagers. It applied to 16- to 19-year-olds for the first six months of their first job.

34a. How would you predict such a youth subminimum wage would affect the likelihood of teens receiving on-the-job training? Would general or specific training opportunities be most affected?

34b. Construct a simple numerical example to illustrate your reasoning.

#### Effects of Subsidized Training

35. Under the Job Training Partnership Act, the government substantially subsidized employer costs incurred in training certain disadvantaged groups in the population. Refugees from the Vietnam War, for example, were a group targeted by the program, although other groups also qualified.

35a. How would this program affect a firm’s employment/hours choice?

35b. How would this program affect the job stability of the targeted groups?
Monopsony

*36. Consider a monopsonist with a production function given by the equation

\[ Q = LK. \]

The firm’s marginal product is given by the equation

\[ MPL = K. \]

The labor supply curve for this market is given by the equation

\[ W = 3L. \]

Suppose the firm has monopoly power in the output market and faces a demand curve for its product given by the equation

\[ P = 64 - Q. \]

The level of capital is held constant at 3 units in the short run. The price of capital is $5 per unit.

*a. Find the equation for the marginal revenue product of labor (MRPL).

*b. What simplifying assumption about the firm’s production process was made in this problem that is not typically made when examining the firm’s short-run demand for labor? Why do you suppose it was made in this problem?

*c. Find the equation for the marginal expense of labor (MEL).

*d. Calculate the optimal level of labor for this firm.

*e. Calculate the wage paid to the typical worker and the resulting output, price, and profits for the firm.

*f. Suppose a minimum wage of $30 is mandated in this market. Find the optimal employment level for the monopsonist. Compare your result with the answer to 36d. Finally, suppose the minimum wage was set at $66. Find the optimal employment level.