14. If $EDDLT = 65.5$ units, $\sigma_{DDLT} = 10.5$ units, DDLT is normally distributed, and service level is 95 percent:
   a. What is the order point?
   b. What is the safety stock level?

A pharmacy dispenses a generic drug at an average rate of 50 milligrams per day. An examination of pharmacy records suggests that daily demand is approximately normal and has a standard deviation of 5 milligrams per day. Lead time is four days, and the pharmacist wants a stock-out risk that does not exceed 1 percent.
   a. Determine the order point (OP).
   b. How much safety stock should be carried?
   c. What service level would an order point of 215 mg provide?

18. The maintenance manager of a local manufacturing company wants to decide on a safety stock level and order point for a machine lubricating oil used by many of the company's machines. The typical usage of lubricating oil is 65 quarts per week. The oil is ordered from a company in Mexico and the replenishment lead time is 2.6 weeks to receive a shipment of oil. The company's policy is to carry 40 percent of EDDLT as safety stock for consumable supplies.
   a. What is the expected demand during lead time for this lubricating oil?
   b. How many quarts of oil should be carried as safety stock?
   c. How many quarts of oil should be left when a replenishment order is placed?

20. Supplies-To-Go is an office supplies warehouse that is reviewing its ordering policies for its inventory items. The warehouse takes periodic inventory counts of its stock and places orders for materials needed. One of its items is a stapler, stock number BA550b. Inventory counts were taken today, and the inventory level was 1,216 units of the BA550b stapler. The upper inventory target is 4,800 units, and EDDLT is 745. Annual demand for this item is 82,000 units, ordering cost is $120 per order, acquisition cost is $4.85, and the annual carrying cost rate is 30 percent of acquisition cost.
   a. When should the physical inventory count be taken next (i.e., how many calendar days)?
   b. How many BA550b staplers should be ordered today?