

- 2.13 Cashflow vectors are drawn upward when the cashflows are
- receipts.
 - disbursements.
 - costs.
 - none of the above

Numerical Problems

- 2.14 Prepare the cashflow table for Example 2.3.
- 2.15 Perfect Manufacturers decided to finance the company's new car. It paid \$5,000 at the time of purchase and agreed to pay \$5,000 on each of the next four anniversaries of the purchase. The first year's maintenance is free. The company budgeted for sums of \$500, \$1,000, \$1,500, and \$2,000 for the subsequent four years' maintenance. It expects to sell the car at the end of the fifth year for an estimated price of \$2,500. Prepare the cashflow table for this project.
- 2.16 Five years ago, a firm purchased a used personal computer (PC) system for \$2,500. The PC did not require any repair during the first two years. For the subsequent three years, the repair costs were \$85, \$130, and \$195 respectively. The computer was sold at the end of the fifth year for \$500. Develop the cashflow table and state any assumptions made.
- 2.17 Engineering Unlimited borrows \$100,000 for purchasing a robotic system. It pays back the loan (capital and interest) through payments of \$50,000 at the end of six months and of \$65,000 on the first loan anniversary. Sketch the cashflow diagram.
- 2.18 You have borrowed \$1,000 from a bank, which is to be paid back in five equal yearly installments of \$235 each, beginning on the first loan anniversary. Prepare your cashflow table and sketch the cashflow diagram.
- 2.19 Prepare the bank's cashflow table and diagram for problem 2.18.
- 2.20 Sketch the cashflow diagram for Example 2.1.
- 2.21 Sketch the two cashflow diagrams separately for Example 2.2.
- 2.22 Cutting-Edge Services plans to invest \$300,000 in an international information service based on the Internet. It expects to earn \$50,000 in the first year, which is likely to increase annually by \$4,000 during the subsequent nine years. After that it will decline annually by \$3,000 during the next five years. Draw the cashflow diagram for this project.
- 2.23 Environmentally Enlightened Farmers is a small cooperative venture based on organic farming. Its cost for gasoline use has been high. It uses 10,000 gallons of gasoline per year. To economize on the fuel cost, it is considering investing in a fuel storage system with an initial cost of \$2,500. The system's maintenance cost during the first year is expected to be \$50, which will increase annually by \$25 during the subsequent nine years. The system will save 5 cents per gallon. Draw the cashflow diagram for the investment by assuming the system's salvage value to be \$450 at the end of its useful life of ten years.
- 2.24 An investment of \$22,000 in a hydraulic system returns a benefit of \$8,250 in the very first year. The benefits increase annually by 10% during the subsequent four years. At the end of the fifth year, the system is sold for \$3,000. Sketch the cashflow diagram after preparing the cashflow table.