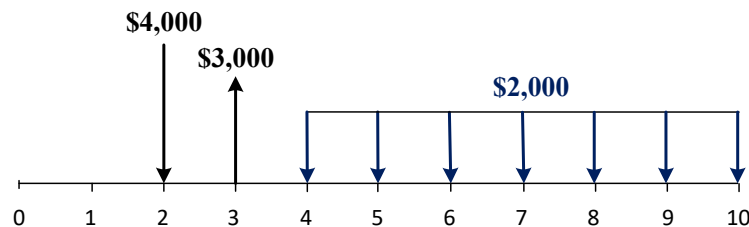
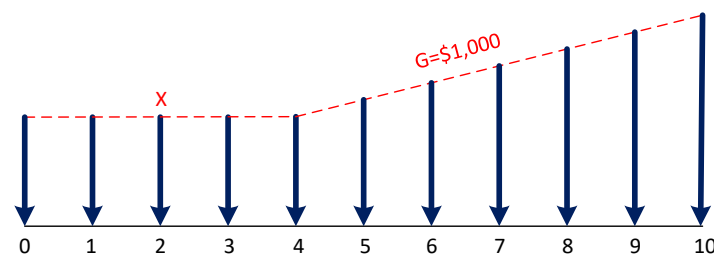


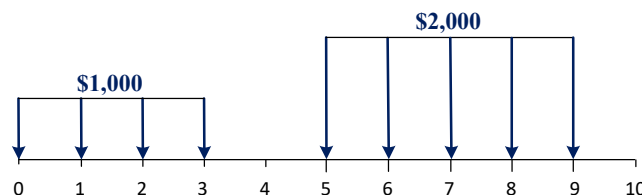
- 1) At what rate of interest will an investment double itself in 8 years?
- 2) An investment project costs P . It is expected to have an annual net cash flow of $0.125P$ for 20 years.
 - A) What is the project's payback period?
 - B) What is the annual interest rate?
- 3) Revenue from the sale of ergonomic hand tools was \$300,000 in years 1 through 4 and \$465,000 in years 5 through 9. Determine the equivalent annual revenue in years 1 through 9 at an interest rate of 10% per year.
- 4) Alex, an engineering graduate, who is planning for early retirement 20 years from now. He believes that he will need \$1,000,000 in year 20. He already has \$100,000 in his investment account. How much will he have to invest each year for the following 20 years if the account grows at a rate of 10% per year?
- 5) 20 years later, Alex has \$1,000,000 in his investment account. He plans to spend \$200,000 each year from his account. How many years would it take before his account is depleted? Use $i = 10\%$ per year.
- 6) Maha borrowed SR 200,000 to purchase a new car. What is the annual interest rate if the loan is to be paid in 5 equal end of year payments of SR 50,000 starting 1 year from the loan date?
- 7) Find the present worth at $i = 10\%$ per year for the cash flow shown below.



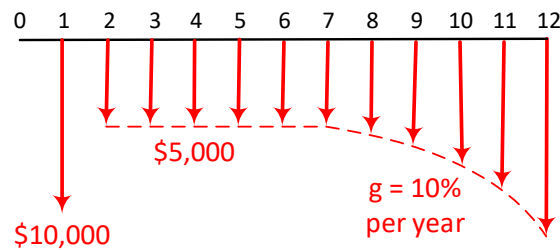
- 8) For the cash flows shown below, determine the value of x that will make the future worth in year 10 equal to \$100,000 at interest rate of 10% per year.



- 9) For the cash flows shown in the diagram, find the future worth at end of year 10 at interest rate of 10% per year.



- 10) Find the equivalent annual worth from year 1 through 12 of the following cash flow at interest rate of 15% per year.



- 11) For the Cash Flow Diagram (CFD) shown below and an interest rate of 10% per year, find:

- A) The present worth at 0,
- B) The Future worth at 12, and
- C) The annual worth in years 1 through 12.

