Solving Investment Portfolio Problems

An investment portfolio can be built from different types of investments, such as single payment investments and investments involving regular payments. The factors that can contribute to a larger return on an investment are time, interest rate, compounding frequency, and payment frequency.

Example:

Jason is hoping to buy a house in 10 years. He wants his money to grow so he can make a substantial down payment. His investment portfolio includes the following:

- A 10-year $2000 GIC that earns 4.2%, compounded semi-annually
- A savings account that earns 1.8%, compounded weekly, where he deposits $55 every week
- A 5-year $4000 bond that earns 3.9%, compounded quarterly, which he will re-invest in another bond at an interest rate of 4.1%

a. Determine the total value of Jason's portfolio in 10 years.

b. In 10 years, what will be his rate of return on his investments?

Solution: