

If you had a choice to invest a sum of money into an account that yields 7% interest compounded quarterly versus one that compounds interest semi-annually, which would you choose?

Answer each of the following.

- A)** If you invest \$2500 in an account that pays 12% interest, compounded quarterly, how much would you have at the end of 17 years?

- B)** How much would you have to invest in an account that pays 6% interest, compounded monthly, to have a balance of \$30,000 at the end of 10 years?

- C)** How long will it take for an investment of \$2,000 in an account that pays $8\frac{1}{2}\%$ interest compounded quarterly to become \$15,000.

- D)** How long will it take for an amount of money to double if deposited in an account that pays 4.5% interest compounded monthly?

- E)** At what interest rate must you invest \$10,000 to have an ending balance of \$72,000 at the end of 14 years? (Assume interest is compounded quarterly.)
- F)** If you invest \$26,000 in an account that pays $3\frac{1}{2}\%$ interest compounded continuously, how much would your investment be worth in 18 years.
- G)** How long will it take for an amount of money to double if invested in an account that pays 9% interest compounded continuously.
- H)** At what interest rate must you invest \$10,000 to have an ending balance of \$15,000 at the end of 9 years? (Assume interest is compounded continuously.)
- I)** How much must your principle investment be if you have \$30,000 after 16 years in an account that pays 7.5% interest compounded continuously.