1. How much is in an account after 6 years if $500 is invested at 2.4% annual interest compounded
   (a) quarterly?

   (b) monthly?

2. You need $5000 in 5 years for a down payment on a new car. How much should you invest
   now if you can get 3.7% annual interest compounded quarterly?

3. What is the effective rate of 3.7% annual interest compounded quarterly?

4. How long will it take $1600 to grow to $5000 at 3.7% annual interest compounded quarterly?

5. You want to start saving for a new truck. If you deposit $150 per quarter into an account
   earning 3.75% annual interest compounded quarterly, how much will you have at the end of 5
   years?
6. Suppose in 5 years you’d like to have $5000 for a deposit on a new truck. How much should you invest per quarter in an account earning 3.75% annual interest compounded quarterly?

7. If you were able to deposit $600 per quarter into an account earning 3.75% annual interest compounded quarterly,

   (a) How many years would it take for you to have $20,000 to pay for the new truck in cash?

   (b) About how much total interest did you earn?

8. Suppose you decide not to wait to buy the $20,000 truck. Instead, you finance it at 6% compounded monthly for 5 years.

   (a) What are your monthly payments?

   (b) How much do you end up paying for the truck?

   (c) How much interest do you pay?
Answers

1. (a) $577.19  
   (b) $577.36

2. $4159.06

3. 3.7517%

4. 31 years

5. $3282.83

6. $228.46

7. (a) 7.5 years  
   (b) $2,000

8. (a) $386.66  
   (b) $23,199.60  
   (c) $3,199.60