# Effective Interest Rates

$$i_{effective} = \left(1 + \frac{r}{n}\right)^n - 1$$

Determine the effective annual interest rate, correct to two decimal places, for the following nominal rates and compounding periods.

Question 1:

6.2% per annum, compounding monthly

%

Question 2:

8.4% per annum, compounding daily

%

Question 3:

4.8% per annum, compounding weekly

%

Question 4:

12.5% per annum, compounding quarterly

%

Question 5:

7.5% per annum, compounding every 6 months

%

Question 6:

Sharon is considering investing $140 000. Her bank has two compound interest investment options:

A:      5.3% per annum, compounding monthly

B:      5.5% per annum, compounding quarterly

  a) Calculate the effective interest rate for each of the investment options.

A:                                    %                            B:                                    %

  b) Calculate the amount of interest sharon would earn in the first year for each of the investment options. Round to 2 decimal places.

A:      $                                               B:      $

  c) Which investment option should Sharon choose?


  d) Why?