Questions

1. Use a spreadsheet to calculate the values of (i(p) ) ( p= 2,4,12) based on an input value of

i = 4% .  Express your answers as percentages to 4DP.

1. Use a spreadsheet to calculate the values of d and (d(p)) (p = 2,4,12), based on an input value of i = 5% .  Express your answers as percentages to 4DP.
2. Use a spreadsheet to calculate the values of (i(p)) ( p= 2,4,12), (d(p))(p= 2,4,12) and δ based on an input value of i= 2% .  Express your answers as percentages to 4DP.
3. Use a spreadsheet to calculate the values of (i(p)) ( p= 2,4,12), (d(p))(p= 2,4,12) and δ based on an input value of i = 7% .  Express your answers as percentages to 4DP.
4. A lump sum of Rs. 1000 is invested at time 0.
   1. Determine the accumulated value of the investment at time *t* = 1,2,...,40 years assuming that the interest rate is 5% *pa* convertible monthly.
   2. Determine the accumulated value of the investment at time *t* = 1,2,...,40 years assuming that the discount rate is 2% *pa* convertible six‐monthly.
   3. Draw a single graph to show the accumulated values of the investment at time *t* = 0,1,2,...,40 years at

* an interest rate of 7.5% *pa* effective
* a discount rate of 7.5% *pa* effective
* an interest rate of 7.75% *pa* convertible quarterly
* a discount rate of 7% *pa* convertible monthly
* a force of interest of 6.9% *pa*.