Compound Interest **YOU MUST SHOW YOUR WORK**

 

1. Complete the following by finding the value for n and i.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Rate/a | Timea = years | Compounded | rn | nt |
| a.) | 6% | 2 a | Annually |  |  |
| b.)  | 10% | 5 a | Semi-annually |  |  |
| c.)  | 8% | 10 a | Quarterly |  |  |
| d.) | 12% | 3 a | Monthly |  |  |
| e.) | 6% | 2.5 a | Monthly |  |  |
| f.) | 6% | 4.25 a | Quarterly |  |  |

1. Determine the amount of the future value

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Principal | Rate | Time | Compounded | Amount |
| a.) | $250 | 12% | 2 a | Monthly |  |
| b.)  | $500 | 8% | 12a | Quarterly |  |
| c.)  | $1000 | 3.5% | 5 a | Annually |  |
| d.) | $2000 | 6% | 15 a | Semi-annually |  |
| e.) | $4000 | 6% | 2.5 a | Monthly |  |
| f.) | $8000 | 10% | 40 a | Annually |  |

1. What is the amount of a $5000 Canada Savings Bonds if invested for 5 a, interest is compounded semi-annually at a rate of 5%/a?
2. Calculate the amount and the interest earned on $1000 deposit if invested under the following conditions for a 3 year period.
3. 6%, compounded annually
4. 6% compounded semi-annually
5. 6% compounded quarterly
6. 6% compounded monthly