AnsAssignment

Financial Math Assignment   Name:_____

Knowledge and Understanding
1. Calculate the simple interest on $800 at an annual rate of 4.2% for 6 months. $16.8

2. Calculate the amount, when $200 is invested for 5 years at 2% compounded annually.

$220.82
3. Calculate the amount, when $400 is invested for 3.5 years at 3% compounded quarterly.
$444.11
4. Calculate the amount of the annuity, when $200 is deposited every month for 4 years at 3%
compounded monthly. $10 186.24

5. Calculate the regular monthly payment for an annuity, when you borrow $5000 at 5%
compounded monthly for 3 years.
$149.85

Application
6. Determine the amount of interest you would receive if you invested $650 at 3.5% annually for
9 months. $17.06

7. Suppose you want to save for a car and you need $5000 two years from now. What
principal should you invest today at an annual rate of 2.5% compounded quarterly? $4756.89

8. A $2000 Guaranteed Investment Certificate (GIC) has an annual interest rate of 5.5%
compounded semi-annually. Determine the value of the certificate after 4 years. $2484.76

9. Troy was awarded $48000 and he has decided to invest it in an annuity which will pay him
6.8% per annum compounded monthly for 1.5 years. How large is the payment that he will
receive every month? $2812.52

10. How much money must be invested now at 6.6% per annum compounded monthly to
provide monthly payments of $400 for 4 years? $16834.24

11. Kim wants to have $25,000 in 4 years. How much would she have to deposit every month
for the next 4 years at a rate of 8% compounded monthly in order to have enough money?

Communication   collect interest in R $443.66
12. What is the difference between an annuity and present value of an annuity?
                                        ← remove interest from R
Thinking, Inquiry and Problem Solving
13. You just purchased a $300 000 home. You make a 10% deposit and mortgage the rest at
6% compounded semi-annually amoritized over 20 years.

a) What is the amount of the mortgage? $270 000
b) What is the equivalent monthly rate of interest?   0.004938622
c) Calculate the monthly payment. $1922.91
d) How much did you pay for the house?
$491 498.40