Gen Math - Financial Math 2 Worksheet

1. Jo deposits $100 each month in her account for 10 years. How much does she accrue if the bank pays 7% interest compounded on a half-yearly basis?

2. Use the table of future values of $1 of an ordinary annuity to calculate the value of an ordinary annuity of $300 per month which is invested at the rate of 2% per month for 5 months.

3. Use the present value formula to calculate the monthly repayment on a home loan of $100 000 at 12% pa compounded monthly for 20 years. Hence calculate the total repayments and total interest over the term of the loan.

4. What would be the future value of a $5000 per year annuity at 3% per annum for 6 years, with interest compounding yearly?

5. What is the value of an annuity that would provide a future value of $407100 after 7 years at 5% per annum compound interest?

6. An annuity of $1000 per quarter is invested at 4% per annum, compounded quarterly for 2 years. What will be the amount of interest earned?

7. Explain why the computer would never be worth nothing if the declining balance method of depreciation is used, with 30% per annum rate of depreciation. Use suitable calculations to support your answer.

8. Lou bought a plasma TV which was priced at $3499. He paid $1000 deposit and got a loan for the balance that was paid off by 24 monthly installments of $135.36.
   What simple interest rate per annum, to the nearest percent, was charged on his loan?
   (A) 11%
   (B) 15%
   (C) 30%
   (D) 46%

9. Sally decides to put $100 per week into her superannuation fund. The interest rate quoted is 8% per annum, compounded weekly. Write the expression to calculate the future value of her superannuation at the end of 35 years. No calculation required.

10. Using the tax table, what is the tax payable on $43561?

Taxable income	Tax payable
$0 – $12000	Nil
$12001 – $30000	30 cents for each $1 over $12000
$30001 – $45000	$5400 plus 40 cents for each $1 over $30000
$45001 – $60000	$11400 plus 50 cents for each $1 over $45000
over $60000	$18900 plus 55 cents for each $1 over $60000

(A)$5424.40
(B)$10824.40
(C)$16224.40
(D)$17424.40

Note: You may use formulae and standard tables to perform calculations wherever required