Investment Quiz Name_____Answer Key_____

$A = P(1 + r/n)^{nt}$

1. On the day of your birth, Granpa put $2,000 in a 25-year, tax-free municipal bond delivering 3.5% annually and the bond becomes yours on your 25th birthday. How much will this bond be worth at maturity? Show work.

$2,000 x (1.035)^(25) = $4,726.49

2. Compare the following 2 options to determine which yields the most (is worth more) after a 12 year of investment of $5,000. Show your work.

- Savings account at 2.4% compounding quarterly.
- Money Market account at 1.8% compounding monthly.

$5,000 x (1 + (.024/4))^(12 x 4) = $6,663.05

$5,000 x (1 + (.018/12))^(12 x 12) = $6,204.51

3. Build a budget using your monthly gross pay of $4,000.

Parameters:

- Income tax is 18% of your monthly gross pay.
- Health/Life Insurance is 10% of your monthly gross pay.
- Student loans is 5% of your monthly gross pay.
- Housing range $800 - $2000. (you choose)
  (small one bedroom up to a 2 bedroom)
- Car Payment range is $150 - $600. (you choose)
  (Used pick-up to new BMW)
- Transportation is $150 for fuel and maintenance.
- Insurance is $125 for car and possessions coverage.
- Groceries (includes food, cleaning supplies, miscellaneous)
- Digitals (Phone/Data/Internet/TV/Downloads/Services)
- Utilities (electricity/water)
- Savings
- Entertainment
- Gifts (Holiday/Birthday/Teacher/Other)
- Donations/Charity
- Clothing
- Pets/Hobbies

Total on next page should be $4,000.

Maximize ‘Savings’ item while allocating reasonable and honest amounts to the other categories.

Personal Budget Item	Allocated Cost
Income Tax	$720
Health/Life Insurance	$400
Student Loans	$200
Housing	$1,000
Car Payments	$300
Transportation	$150
Insurance	$125
Groceries	$150
Digitals	$100
Utilities	$100
Savings	$180
Entertainment	$25
Gifts	$50
Donations	$450
Clothing	$25
Pets/Hobbies	$25
Total	$4,000

4. Winnie and Willaker are excited about their new home in Lovejoy ISD and foresee their twins having opportunities and experiences as wonderful as those afforded the LHS class of 2016. In support of this, they want each twin to have a $20,000 fund when they start college.

As the twins are now starting first grade, how much starter money do they need to put into each account today, with a guaranteed annual rate of 5.5% compounded quarterly, in order to meet their goal? Show your work.

$20,000 = P x (1 + (.055/4))^(18 x 4)

$20,000 = P x (2.673)

P = $7,481.83