**Writing Assignment #2**

Jinhee Ju, 27, has an annual salary of $37,000. Jinhee wants to buy a new car in 3 years, and she wants to save enough money to make a $7,000 down payment on the car and finance the balance. Also, in her plan is a wedding. Jinhee and her boyfriend, Paul, have set a wedding date 2 years in the future, after he finishes medical school. Paul will have a $100,000 student loan to repay after graduation. But both Jinhee and Paul want to buy a home of their own as soon as possible. This may be possible because at age 30, Jinhee will be eligible to access a $50,000 trust fund left to her as an inheritance by her late grandfather. Her trust fund is invested in 7 percent government bonds.

1. Calculate the amount that Jinhee needs to save each year for the down payment on a new car, assuming she can earn 6 percent per year on her saving. How much of her down payment will come from interest earned?

PMT (N=3, I/Y=6, PV=7,000) 🡪 2,618.77 \* 3 = 7,856.31 – 7000 = $856.31

1. What will be the value of Jinhee’s trust fund at age 60, assuming she takes possession of half of the money at age 30 for a house down payment and leaves the other half of the money untouched where it is currently invested?

FV (N=30, I/Y=7, PV=25,000) 🡪 $190,306.38

1. What is Paul’s monthly payment if he wants to repay his student loans completely within 10 years? Assume Paul pays a 5 percent annual interest rate (compounded monthly) on his student loan. Construct the amortization schedule of Paul’s student loan for the first three months.

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| --- | --- | --- | --- | --- |
| **Month** | **Monthly Payment** | **Interest**  | **Amortization** | **Outstanding Balance** |
| 0 |   |   |   | $100,000  |
| 1 | $1,060.66 | $416.67 | $643.99 | $99,356.01 |
| 2 | $1,060.66  | $413.98 | $646.68  | $98,709.33 |
| 3 |  $1,060.66 | $411.29 | $649.37 | $98,059.96 |