Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Problem Set 6.4***

Alex and Andy are best friends. They became best friends in Kindergarten class when they realized they had the same birthday of January 1. While they are best friends, they are incredibly different. Alex is reserved and doesn’t take many risks. Andy is adventurous and loves to try new things.

They graduate from college the year they are 22 years old and decide to open up their own business. Since they co-own the company they have the same salary.

Alex invests $1000 a year into an IRA that earns 9% annually. In the year that Alex is 30, he increases his investment to $2000 a year. When Alex turns 40 he feels comfortable with his investment and he doesn’t put any more money into the IRA. He retires at age 65.

Andy doesn’t invest into an IRA when he and Alex open up the company. Instead, he decides to spend his extra cash on traveling the world – investing in experiences. When Andy turns 40 he realizes he doesn’t want to work forever and he needs to start thinking about retirement. He begins to invest $3000 a year into an IRA that pays 9% interest annually. He retires at age 65.

1. How much money does Alex have for retirement at age 65?

**$530,998.54**

2. How much money does Andy have for retirement at age 65?

**$279,971.93**

3. How much money did Alex pay into his IRA?

**$28,000**

4. How much money did Andy pay into his IRA?

**$78,000**

5. If Alex decided to pay $5000 into his IRA when he was 30 – 39 years old instead of $2000, how much would he have in his IRA when he turned 65?

**$959,400.78**

6. How much money would Andy need to invest in his IRA if he wants to have the same amount as Alex does at retirement (Use your answer from number 1 for the amount Alex has in his IRA).

**$5689.84**