Dear Mot,

We’ve heard that you need some financial advice.  We, as loving and caring students of your twin brother Tom, would like to help you.  This could be the most important fifteen minutes of your life (more or less depending on how fast you read).  It is very important you understand that time is not on your side and can be expensive.  As your brother Tom would say, “You can always find $1000, but you can’t always find time.”

Let’s say you decided to invest $1000 of your hard-earned money every quarter of a year beginning at 22 years old. You will continue to make these payments until you are 68 years old. Depending on how the interest is compounded, you have the ability to make the big bucks for a happy retirement. To prove our point, we will show you the money you can earn when interest is compounded at 4%, 7%, and 10% and various other scenarios to help you retire with the most moolah possible.

To start out, you need to make sure that the interest rate is above 3% annually. If your interest rate is lower than 3%, most of the money in your account is yours. This is not an ideal situation because, as your brother Tom says, “When you retire, most of the money should be money you have earned from interest.”

Ideally, if you were to begin investing your $1000 at the age of 22 and continued investing quarterly until the age of 68, you have put yourself in a very successful situation. If interest is compounded at 4%, you would find yourself sitting on $535,466.46 when you retire at 68 years old. $350,466.46 of that total is money you earned in interest. Keep in mind, you only contributed $184,000. At 7%, you would have $1,381,861.08 sitting in your bank account for have a luxurious retirement. $1,197,861.08 of that would be money you earned from interest. Now, we’re REALLY cooking with oil. If interest is compounded at 10%, you would have $3,909,926.53. You would earn $3,724,926.53 in interest. Now that’s a lot of moolah!

Now, let’s say that Great Aunt Sally sadly and tragically wrecked on her canoe trip trying to find the love of her life. As sad as that is, she left you a hefty sum. This money would allow you to double your payment quarterly every year until the age of 68. If invested at 4%, your earnings would be $1,064,631.28. If invested at 7%, your earnings would be $2,738,955.51. And finally, if you doubled your payment every quarter until you turned 68 and interest was compounded at 10%, you would have $7,723,489.01 in the bank. Let’s say you did not stumble upon this sum, yet you still found that extra $1,000 every quarter. While it might seem daunting at first, you would earn your money back when it came time to retire. While you have doubled the amount you have put in, you are getting more money from interest.

Let’s say that Uncle Sam was very generous and offered you double the interest rate. You continue to invest $1000 every quarter. At 8%, you would earn $1,937,849.65. At 14%, you would earn $17,143,066.65. In this situation, almost all of your total funds are gained from interest. In comparison to doubling your payment every quarter, a high interest rate will ultimately earn you more money at the age of retirement.

Now, let’s say that at the age of 42, you have three kids, two of which will be entering college in the coming years. You decide to place the money you would contribute to retirement into an account for your children to go to college. You do not make any more contributions and return to the account at the age of 68. When interest is compounded at 4%, you would have $352,187.81 for a happy retirement. If interest is compounded at 7%, you would have $1,086,759.09 to retire with. Finally, if interest is compounded at 10%, you would retire with $3,416,281.11 in your bank account.

So, in contrast to the previous scenario, let’s say you decide to put off investing, for whatever reason, and wait until you are 45 years old to start saving for retirement. If interest is compounded at 4%, you would retire with $153,805.69. When interest is compounded at 7%, you would have $233,732.37 at retirement. Even if interest is compounded at 10%, you would only have $366,477.22 at the age of 68. In comparison to the previous scenario, it is important that you at least get the ball rolling. If you contribute a lot in the beginning and hold off later on, you will have more money than if you wait until you are 45 to start saving for retirement because when you stop early, exponential growth has already begun to take place. This is the principle that allows your money to grow over time, and earn you a lot of money from interest. As previously mentioned, time is expensive and waits for no one.

One way to allow your money to grow even more would be to take it out even later than age 68 (more so at 83 years old). This would allow your money to grow significantly in the extra years given. If you waited an extra 15 years to retrieve this money, your interest earned would absolutely trump your amount personally contributed. The money that you personally contributed would be so miniscule compared to the amount you make from interest.

Well Mot, you’re a pretty smart guy, and you’re probably saying to yourself, “Well I make bank and at 45 years old I could just make up for lost time.” You would be right, however, this is not an ideal situation at all. But, if you chose to go down this path here is how you could do it. If you desire to retire with the initial totals in paragraph 4, here’s what you would have to contribute each month to make up for lost time. At 4%, you would have to put in about $3500 quarterly. At 7%, you would have to contribute roughly $5900 quarterly. At 10%, you would have to contribute close to $11,000 quarterly. Now, if you desire to reach the totals of waiting to put in money until you are 45, here’s what you would have to contribute quarterly. At 4%, you would have to put in about $2500. At 7% you would have to put in roughly $5000. At 10%, you would have to put in close to $10,500. In both of these scenarios you lose the time that your money could be growing exponentially. This is why you would have to contribute so much. Also, most of the money in the account at retirement age is your money. This means you have essentially failed at the retirement game. The point is, don’t wait Mot!

For our final what if scenario, let’s say you decide to wait until you are 45 to invest, and you are going to make up the difference with higher interest rates. If you desired total is from the original scenario in paragraph four, this is what you would have to do. To get to the 4% total, your interest rate would have to be roughly 13%. Your interest rate would have to be close to 18% if you desire the 7% total. And finally, you would have to have an interest rate of close to 23% to reach the 10% total. All of these interest rates are very far-fetched and you would never receive them. The point is that you should begin investing early in life to allow exponential growth to take place, which will allow yourself to gain more money. We hope that what Tom has taught us will help you make investing decisions starting now.

Sincerely,

Taylor Banty and Miranda Barringer

P.S. Please remember that time is expensive. Also, you can always put your potential marriage to the test by going on a group canoeing trip and paddling with your significant other. If you cannot survive this said canoe trip, your marriage will never last. And, you can rest assured, that part of this money you have been investing will be put to the costs of your divorce.