Unit 3 Day 6 – Growth #2 Classwork Name: _____

Cassidy's grandmother started college funds for her two granddaughters. She gave $1,250 to Cassidy and $2,500 to Cassidy's older sister, Kaylee. Each fund was invested in a 10-year bond that pays 4% interest a year.

1. For each fund, write an explicit equation to show the relationship between the number of years and the amount of money in the fund.

Cassidy's fund: Kaylee's fund:

2. Make a table to show the amount in each fund for 0 to 10 years.

Cassidy's college fund:

Year	0	1	2	3	4	5	6	7	8	9	10
Amount											

Kaylee's college fund:

Year	0	1	2	3	4	5	6	7	8	9	10
Amount											

3. **a.** How does the initial value affect the growth factor?

b. How does the initial value affect the final value?

4. A year later, Cassidy's grandmother started a fund for Cassidy's younger brother, Matt. Cassidy made this calculation to predict the value of Matt's fund several years from now:

$$Value = \$2{,}000 \times 1.05 \times 1.05 \times 1.05 \times 1.05$$

What initial value, growth rate, growth factor, and number of years is Cassidy assuming?

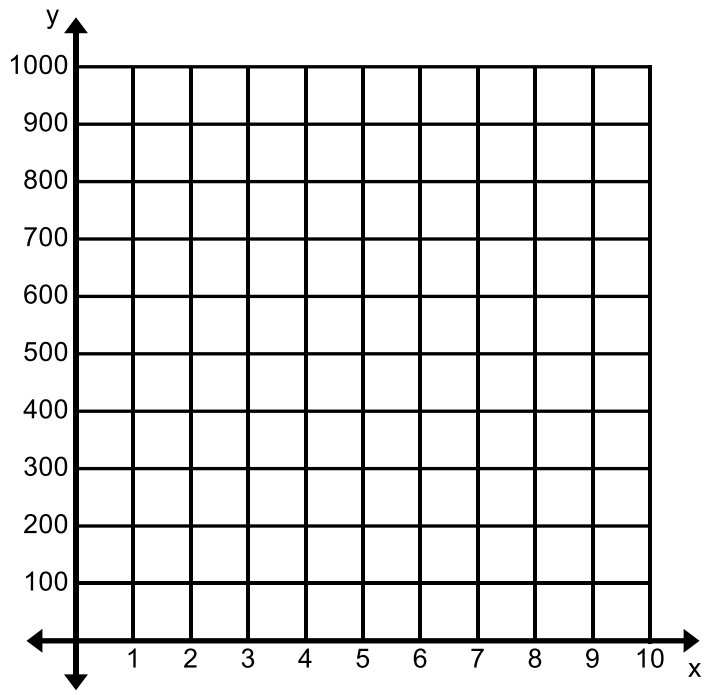
a) Initial value: b) Growth rate: c) Growth factor: d) Number of years:

5. If the initial value continues to increase at this rate, how much would the fund be worth in one more year?

6. How much will the fund be worth at 15 years?

7. Cassidy and Kaylee's Uncle Joe doesn't trust banks. He keeps his money stuffed under the mattress on his bed. He starts with $250 and adds $50 each year. Fill in the table, write an equation, and make a graph to show this situation.

Year	0	1	2	3	4	5	6	7	8
Amount									



Explicit Equation:

8. How does Uncle Joe's plan compare to Kaylee and Cassidy's plans?