1 A gentleman who wasn’t very bright invested his money in a bank that paid 0% interest. Once he realized this, he pulled out him money, saying, “It will be gone soon! Year over year, they multiply my money by zero!” At 0% interest, what would a bank actually multiply the money by?

2 I slightly less dense fellow invested his money at a bank with 2% annual interest. Does his money get multiplied by 2 every year? Explain.

3 A man who was not a complete imbecile invested his money at 5% annual interest. He says that means he gets $0.05 for every dollar he has in the bank. With $1,000 invested, he says he make $50 every year in interest. Is that true? Explain.

4 Your uncle bought a home for $100,000 and it appreciates by 3% per year. How much will it be worth in 5 years?

5 Did you solve #4 via repeated multiplication? Show how it could be solved using exponents.

6 Explain why interest rates are all calculated relative to the number 1, not 0

7 Suppose there is some amount A one ends up with after time t, where one began with a principle P gaining or losing a signed interest rate r. Write formula for A in terms of P, r, and t.

8 You bought a house for $200,000 five years ago, and today it is worth $322,102. Using the simpler equation y=abx, where is time since five years ago, solve first for a and then b. Use b to answer how much interest per year your house is appreciating by.

10 Describe what you think the point of this problem set is, using whole sentences.