Algebra Name: _____

Writing Linear Models from Word ProblemsDate: _____ Pd: ____

For each scenario, identify the meaning of the slope, the meaning of the "y-intercept", and write a linear model in slope intercept form. You must define your variables.

1. Susan got a check from her grandparents for her birthday. She decided to use the money she got to buy a dozen donuts each Saturday morning for her family. After 3 weeks of buying donuts, her "Donut Fund" had a balance of $39.08. After 7 weeks she only had $4.52 left.

2. Thomas got a box of comic books from his uncle when he turned 9. He got so interested in the comics that he decided to get a monthly subscription to some of the titles. Over the next few years, he kept the same number of subscriptions and never threw out any of the comic books. When he turned 10, he had a total of 158 comics in his collection. When he turned 11, he had a total of 218 comics in his collection. Assume he didn't buy any additional comic books besides the ones he got from the subscriptions and that his subscriptions started the month after his 9th birthday.