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Quiz 3

February 21, 2019

Instructions: Do all the problems on **both sides** of this paper. Show all your work.

Simple Interest Formula	$A = P(1 + APR \times Y)$
Compunded Interest Formula (compounding n times per year)	$A = P\left(1 + \frac{APR}{n}\right)^{nY}$
Continuously Compunded Interest Formula	$A = Pe^{APR \times Y}$

Rod and Todd just finished their chores and their father has given each of them $50. They're having an arugment about what to do with their allowance. Help them determine the best possible investment strategy.

1. **[5 points]** Rod is going to invest in a 10 year treasury bond that pays (simple) interest at a rate of 2.5%. How much money will he have when the bond matures? (after 10 years)

2. **[5 points]** Todd is going to invest in a savings account at Sychrony Bank that pays 2.25% APR, compounded monthly. How much money will Todd have in 10 years?

3. **[5 points]**Martin finds an account that pays 2% APR and compounds continuously. He is sure that they will be better off investing in his account. Is he right?

4. **[5 points]** What is the APY (annual percent yeild) on Martin's account?