

**Econ 2020: Principles of Macroeconomics**  
**Discussion Sections 105 & 157**  
**TA: Erica Sprott**  
**Homework #4**  
**Due Friday, 3/19/21, 9:00 AM**

**Name:**

- 1. Describe the two types of finance and give an example for each.**
- 2. What is the difference between the *price* of a bond and the *face value* of a bond? Be sure to include (1) who pays, and (2) when it is paid.**
- 3. Suppose UVA sells a \$1250 one-year AAA bond for a price of \$780. What is the implied interest rate on the bond?**
- 4. Suppose WSU also sells a \$1250 one-year bond, but the default risk is higher. Will the interest rate for this bond be higher or lower than the AAA UVA bond? Why is this the case?**

5. If Naomi's retirement account contains \$5000 and an interest rate of 7%, how many years will it take to double? In 30 years, what will be the value of her account?
6. Suppose Sean drops out of college to start a bread baking business and takes a loan from the bank. The nominal interest rate on the loan was 5%, but the inflation rate was 2.7%. What was the real interest rate on the loan?