

1. Which of the following yields is **not** guaranteed in advance as a risk-free return over the entire lifetime of the bond, even if you hold until its maturity date?

- A) The yield to maturity on a 3-month Treasury bill
- B) The yield to maturity on a 10-year Treasury note
- C) The yield to maturity on a 10-year Treasury STRIP
- D) The yield to maturity on a 10-year zero-coupon Treasury bond

2. A 10-year zero-coupon Treasury STRIP is trading at a yield of 5%. How much does \$10,000 of principal cost today? (Round to the nearest penny.)

3. A 3-month Treasury bill offers a yield of 5%. How much does \$10,000 of principal cost today? (Round to the nearest penny.)

4. Suppose you buy \$10,000 principal of a one-year Treasury note at a yield to maturity of 5%. Six months later, you sell it. At the date you sell, 6-month Treasuries have a yield to maturity of 4%. What return did you make on your trade, as a percent? (Round to two decimal places, for example 3.33%)

Note: Whenever I ask you to do calculations with a yield, we will only use zero-coupon bonds. In these situations, the yield I will ask you to calculate is technically called an *effective annual yield*. This is almost the same thing as *yield to maturity*, but the real-world definition of YTM can be confusing in practice and we don't want to get into it. The *effective annual yield* just means figure out the return from holding the zero-coupon bond until its maturity date, then annualizing to a one-year rate of return using an exponent. This is the way we will always do things in class, so I am just providing this note for anyone paying very close attention.