

# Assignment #2

1. Datetime – You can find the Spring equinox from <https://www.timeanddate.com/calendar/spring-equinox.htm>
  - a. Print the Spring equinox by setting it to a variable.
  - b. Print “Spring is coming” if the date 2022 Spring equinox is in the future (or “Spring has sprung” if it is in the past.)
  - c. Print how many days it is until (or since) the 2022 Spring equinox.
2. Create a bond calculator based on its face value, coupon payment, coupon frequency, the current interest rate, and the years to maturity
  - a. What’s the price of a bond with a face value of \$1000, coupon payment of \$30 twice a year, with 10 years to maturity, and a prevailing market rate of 4%?
  - b. See Screenshots on next page



<https://www.brandonrenfro.com/bond-price-calculator/>

brandonrenfro.com/bond-price-calculator/

language... Notion Action Zone Dashboard - Ether...

the above mentioned \$1,000 par bond paying a 6% coupon you would receive two payments of \$30.

### BOND CALCULATOR

I want to solve for

Coupon \$

Face Value \$

4.000% yield to maturity

10 years to maturity

Compounding Frequency

The price is \$1,163.51

<https://dqydj.com/bond-pricing-calculator/>

### Bond Pricing Calculator with Dirty Price and Clean Price

#### Bond Pricing Calculator: Inputs

Bond Face Value/Par Value (\$)

Annual Coupon Rate (%)

Market Rate or Discount Rate (%)

Years to Maturity

Days Since Last Payout

Coupon Payment Frequency: ☐ Monthly ☐ Quarterly ☒ Twice a Year ☐ Annually  
☐ None (Zero Coupon)

#### Bond Pricing Calculator: Outputs

Dirty Price (Market Price) (\$):

Clean Price (\$):

Accrued Interest (\$):

## Take-home Assignment #2 (optional)

The Python collections and itertools API libraries can do some interesting things. Can you use either library to calculate which combinations of two six-sided dice add up to 7?

