Bonds Price & Yield Menu

This menu allows to calculate annual or semi-annual coupons bonds with actual calendar or 360 days year in an easy way with all options and values at sight.

Bond Price & Yield Menu Actions	
ACTUAL 30/360	Select the Bond calendar type. Actual calendar or 30 days month - 360 days year.
ANNUAL SEMI	Select the bond coupon type. One or Two coupons per year.
Settlement Date	Inputs the bond Settlement or purchase date in the current date format (M.DY, D.MY or Y.MD).
Maturity Date	Inputs the bond Maturity date or call date in the current date format (M.DY, D.MY or Y.MD). It must coincide with a coupon date.
CALL	Inputs the Call value. It is set for a call price per 100.0 face value. A bond at maturity has a call of 100% of its face value.
CPN	Inputs the bond Coupon rate as an annual %.
Accrued Interest	Calculates the accrued interest from the last coupon date to the settlement or purchase date.
PRICE	Stores or calculates the bond Price per 100.0 face value for a given bond Yield.
YIELD	Stores or calculates the bond Yield% to maturity or yield% to call date for given bond Price.
If any other key is pressed before one of the **Blue** keys, the displayed number is stored in the corresponding variable. Otherwise, the variable is calculated.	

To enter dates (Settlement and Maturity) use the current date format indicated in the display's status bar (M.DY, D.MY or Y.MD). The following examples assumes "M.DY" date format.

Example 1: Price & Yield of a Bond

What price should you pay on October 25, 2021 for a 3.5% U.S. Treasury bond that matures on March 15, 2035 if you wish a yield of 5%? The calendar basis is actual and the coupon payments are semi-annually.

Solution:

Keystrokes	Description
[ACTUAL]	Sets the calendar to **Actual**.
[SEMI]	Sets the bond coupon period to **Semi-Annual**.
10.252021 **[Settlement Date]**	Input the Settlement date (M.DY format).
3.152035 **[Maturity Date]**	Input the Maturity date (M.DY format).
100 **[CALL]**	Input the initial call value.
3.5 **[CPN]**	Input the annual coupon rate in %.
5 **[YIELD]**	Input the desired bond Yield in %.
[PRICE]	Calculates the bond price. **Result = 85.48**
In ALG or CHN logic **[+]** [Accrued Interest] **[=]**	Calculates bond net price in Algebraic or Chain logic: Adds the interest accrued since last coupon to the settlement date. **Result = 0.39** Calculate the net price. **Result = 85.87**
In RPN logic [Accrued Interest] **[+]**	Calculates bond net price in RPN calculation logic: Accrued since last coupon to the settlement date. **Result = 0.39** Calculate the net price. **Result = 85.87**

Suppose that the market quote for the bond is 88¼. What yield does it represent?

88.25 **[PRICE]**	Input the market quote.
[YIELD]	Calculates the bond yield to maturity. **Result = 4.69**

Example 2: A Bond with a Call feature

What is the price of a 6% corporate bond maturing on March 3, 2042 and purchased on May 2, 2022 to yield 5.7%? It is callable on March 3, 2026 (a coupon date), at a value of 102.75. What is the yield to the call date? Use a 30/360 calendar with semi-annual coupon payments.

Solution:

Keystrokes	Description
[30/360]	Sets the bond calendar to **30/360**.
[SEMI]	Sets the bond coupon period to **Semi-Annual**.
5.022022 [Settlement Date]	Input the Settlement date (M.DY format).
3.032042 [Maturity Date]	Input the Maturity date (M.DY format).
100 [CALL]	Input the initial call value.
6 [CPN]	Input the annual coupon rate in %.
5.7 [YIELD]	Input the desired bond Yield in %.
[PRICE]	Calculates the bond price. **Result = 103.53**
3.032026 [Maturity Date]	Input the call date and (M.DY format).
102.75 [CALL]	Input the call value at the call date.
[YIELD]	Calculates yield to call date. **Result = 5.61**

Example 3: A Zero-Coupon Bond

Calculate the price of a zero-coupon annual bond using a 30/360 calendar basis. The bond was purchased on May 19, 2021 and will mature on June 30, 2027, and has a yield to maturity of 10%.

Solution:

Keystrokes	Description
[30/360]	Sets the bond calendar to **30/360**.
[ANNUAL]	Sets the bond Coupon to **Annual**.
5.192021 **[Settlement Date]**	Input the Settlement date (M.DY format).
6.302027 **[Maturity Date]**	Input the Maturity date (M.DY format).
100 **[CALL]**	Input the CALL value to 100%
0 **[CPN]**	Input the annual coupon rate in %.
10 **[YIELD]**	Input the annual coupon rate in %.
[PRICE]	Calculates the bond price. **Result = 55.84**