Answer on Question #38594, Math, Other

The bond`s price is equal to the present value of all future cash flows.

The calculation of it can be presented as:

$$Bond\ price = \frac{CF1}{(1+yield)^1} + \frac{CF2}{(1+yield)^2} + \ldots \frac{Last\ CF}{(1+yield)^n}$$, where CF1,2...n-1 means coupon payment

for the period 1,2...n-1 respectively, last CF means last coupon payment plus nominal value of the bond.

Since interests are compounded quarterly, there will be 13 periods, when interests are charged.

The calculation of bond price will be as following:

$$Bond\ price = \frac{0,115 \times 500}{(1+0,13)^1} + \frac{0,115 \times 500}{(1+0,13)^3} + \frac{0,115 \times 500}{(1+0,13)^5} + \frac{0,115 \times 500}{(1+0,13)^7} + \frac{0,115 \times 500}{(1+0,13)^9} + \frac{0,115 \times 500}{(1+0,13)^{11}} +$$

$$+\frac{0,115 \times 500}{(1+0,13)^{13}} = 192.255\ \$$$.