Answer on question 38601 – Math - Other

If a $500 bond bearing 9.5% semi-annual coupons is purchased at 97.5 and it is redeemable at 102 in four years' time, what is the approximate yield rate?

Solution:

The approximate yield rate is:

$$R = \frac{\left[\frac{Ps - Pp}{n} + I\right]}{\left[\frac{Ps + Pp}{2}\right]},$$

Where Ps - selling price of bonds; Pp - the purchase price of the bonds, and n - the number of years of tenure a bond; I - annual interest income.

$$I = 500 * 0.095 * 2 = \$95$$

$$R = \frac{\left[\frac{102 - 97.5}{4} + 95\right]}{\left[\frac{102 + 97.5}{2}\right]} = 96.36\%.$$