

Answer to Question #38592 - Math - Other:

Question.

What should be the purchase price of a \$1,000 bond redeemable at 105 and bearing semi-annual coupons at 9.75%, if it is sold two years before maturity and money is worth 11%, compounded annually?

Solution.

V	purchase price	?	
C	redemption price		105
R	periodic interest payment		9,75%
n	time in periods to maturity		4
i	yield rate		11%

$$V = C((1 + i)^{-n}) + \frac{R(1 - (1 + i)^{-n})}{i}$$

$$V = 691.97$$