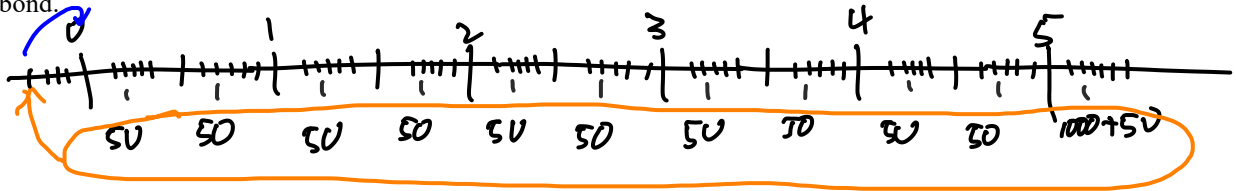


Chapter 6 – Example 2

Assume a bond matures for \$1000 five years and two months from today. The bond pays an annual coupon rate of 10% with semiannual payments. The clean price of the bond equals \$1105. Calculate the yield to maturity on the bond.



$$CP = DP - \left(\frac{MSL}{MLCP}\right)(CPR)$$

$$\text{Dirty (cash) price} = 1105 + \left(\frac{4}{6}\right)50 = 1138.33$$

$$1138.33 = \underbrace{\left(\frac{50}{6}\right)\left(1 - \left(\frac{1}{1+y}\right)^{11}\right)}_{V-4m} + 1000 \left(\frac{1}{1+y}\right)^{11} \underbrace{\left(1+y\right)^{4/6}}_{\text{notes to } V_0}$$

⇒ solve for  $y$

$$\Rightarrow YTM = 2y$$