## Calculate Yield to Maturity

The rate of return anticipated on a bond if it is held until the maturity date.

Par Value: 1000

Market Value: 950

Annual Rate: 8 %

Maturity in Years: 4

Payments:
- Quarterly
- Semi - Annually
- Annually

Calculate

Yield to Maturity: 9.56%

```
C:\Users\skyhb\Desktop\python2020>python homework2.py
bond_price:950
bond_par_value:1000
coupon_rate(%):8
years_to_maturity:4
payment_per_year:1
ytm is: 0.09487179487179487
time 1 spot_rate is: 0.09487179487179498
time 2 spot_rate is: 0.19874424720578587
time 3 spot_rate is: 0.3124712655304376
time 4 spot_rate is: 0.4369877702089664
at time 0 forward_rate to 1 0.19874424720578587
at time 1 forward_rate to 2 0.4369877702089664
at time 2 forward_rate to 3 0.7225808228430683
```

## CALCULATOR

Enter the following details:

Duration of spot rate: 4 (years)

Price of 4 year unit zero-coupon bond: 0.08

CALCULATE CLEAR

4 year spot rate of interest: 88.03 %

4 year spot force of interest: 63.14 %