```
        return(0)

CompoundIncreasingPresentValue(Amount=1000,interestRate=0.05,r=0.1,n=10)
## 11846.657450536086

CompoundIncreasingPresentValue(Amount=1000,interestRate=0,r=0.1,n=10)
## 15937.424601000008


CompoundIncreasingPresentValue(Amount=1000,interestRate=0.05,r=0.1,n=0)
## 0

CompoundIncreasingPresentValue(Amount=1000,interestRate=0.05,r=0,n=10)
## 7721.73492918481

CompoundIncreasingPresentValue(Amount=1000,interestRate=0,r=0,n=10)
## 10000
```

Different Cases	Interest Rates	r	Period	1+i	1+r	PresentValues
1	5%	10%	10	105%	110%	11846,65745
2	0	10%	10	100%	110%	159374,25
3	0	0	10	100%	100%	10000
4	5%	0	10	105%	100%	7721,734929
5	5%	10%	0	105%	110%	0
6	0	0	0	100%	100%	0

Conclusion

The python function evaluates the present values of different annuities for any type of payment pattern. The idea links mathematics and programming to solve complex annuity problems. The solutions can help businesses and individuals to make rational investment and financing decisions. The business can develop financial products that meet the market expectations and comply with financial regulations in terms of pricing.

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