

3. Your father has offered to give you either \$5000 today or \$10,000 in 10 years. If the interest rate is 7% per year, which option is preferable.

$$PV = 10,000/1.07^{10} = 5,083.49$$

So the 10,000 in 10 years is preferable because it is worth more.

4. Consider the following alternatives:

i. \$100 received in one year

ii. \$200 received in five years

iii. \$300 received in ten years

a. Rank the alternatives from most valuable to least valuable if the interest rate is 10% per year.

b. What is your ranking if the interest rate is only 5% per year?

c. What is your ranking if the interest rate is 20% per year?

a. Option ii > Option iii > Option i
rate 10%

Amount	Years	PV
100	1	90.9090909
200	5	124.184265
300	10	115.662987

b. Option iii > Option ii > Option i
rate 5%

Amount	Years	PV
100	1	95.2380952
200	5	156.71523
300	10	184.173976

c. Option i > Option ii > Option iii
rate 20%

Amount	Years	PV
100	1	83.33333
200	5	80.37551
300	10	48.45167

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