

## ANNUITY

Interest rate 0.02

Period	Cash flow
1	1000
2	1000
3	1000
4	1000
5	1000

**PV CLASSICAL FORMULA 4713.4595**

**PV ANNUITY FORMULA 4713.4595**

## PERPETUITY

Interest rate 0.2

Period	Cash flow	PV	PV perpetuity
1	1000	833.3333333	5000
2	1000	1527.777778	5000
3	1000	2106.481481	5000
4	1000	2588.734568	5000
5	1000	2990.61214	5000
6	1000	3325.510117	5000
7	1000	3604.591764	5000
8	1000	3837.159803	5000
9	1000	4030.966503	5000
10	1000	4192.472086	5000
11	1000	4327.060071	5000
12	1000	4439.216726	5000
13	1000	4532.680605	5000
14	1000	4610.567171	5000
15	1000	4675.472642	5000

## GROWING PERPETUITY

Interest rate 0.2

Growth rate 0.01

Period	Cash flow	PV	PV grow. perpetuity
1	1000	833.3333333	5263.157895
2	1010	1534.722222	5263.157895
3	1020.1	2125.05787	5263.157895
4	1030.301	2621.923708	5263.157895

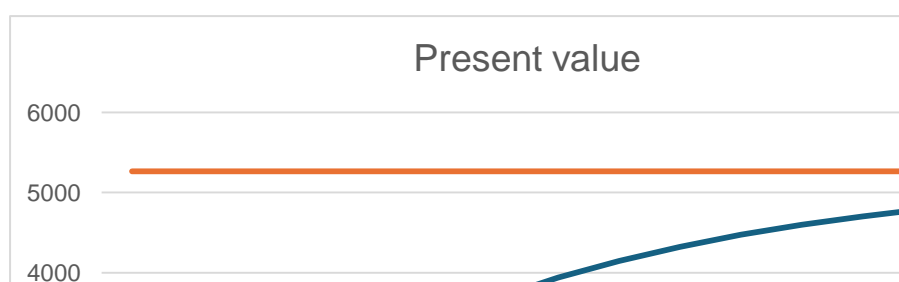
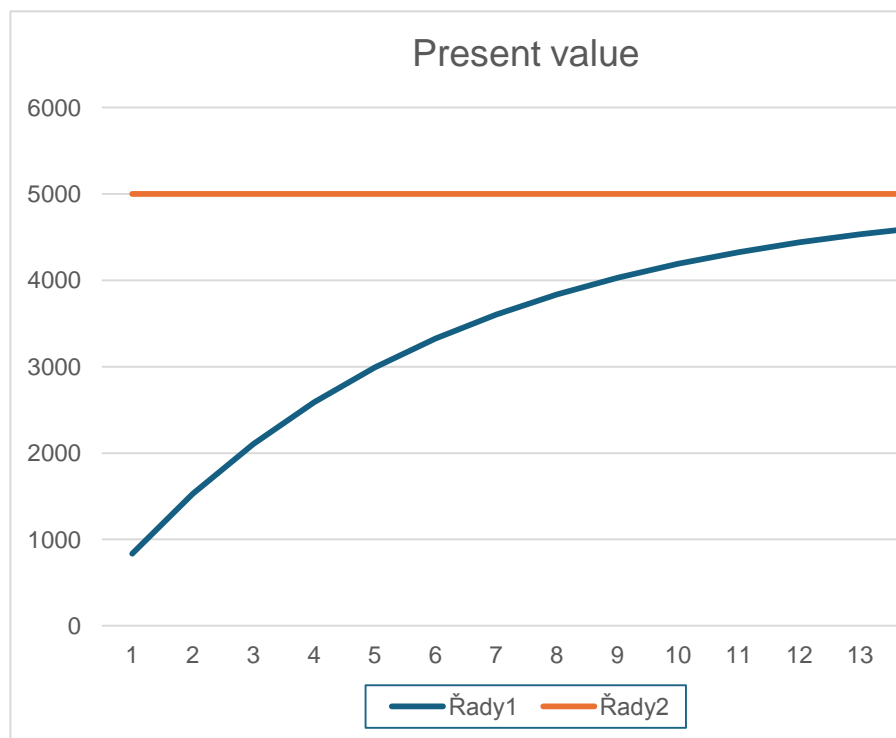
5	1040.604	3040.119121	5263.157895
6	1051.0101	3392.10026	5263.157895
7	1061.5202	3688.351052	5263.157895
8	1072.1354	3937.695469	5263.157895
9	1082.8567	4147.560353	5263.157895
10	1093.6853	4324.19663	5263.157895
11	1104.6221	4472.865497	5263.157895
12	1115.6683	4597.995127	5263.157895
13	1126.825	4703.312565	5263.157895
14	1138.0933	4791.954742	5263.157895
15	1149.4742	4866.561908	5263.157895

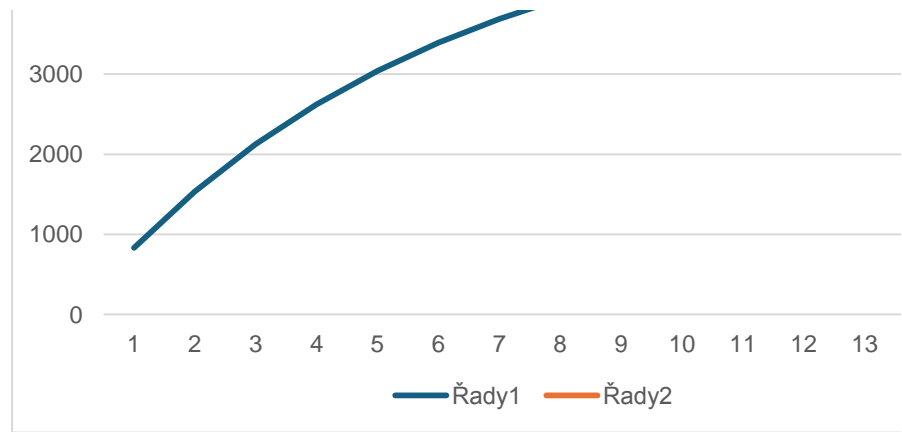
## GROWING ANNUITY

Interest rate 0.02  
Growth rate 0.01

Period	Cash flow
1	1000
2	1010
3	1020.1
4	1030.301
5	1040.604

**PV CLASSICAL FORMULA 4806.782**  
**PV ANNUITY FORMULA 4806.782**



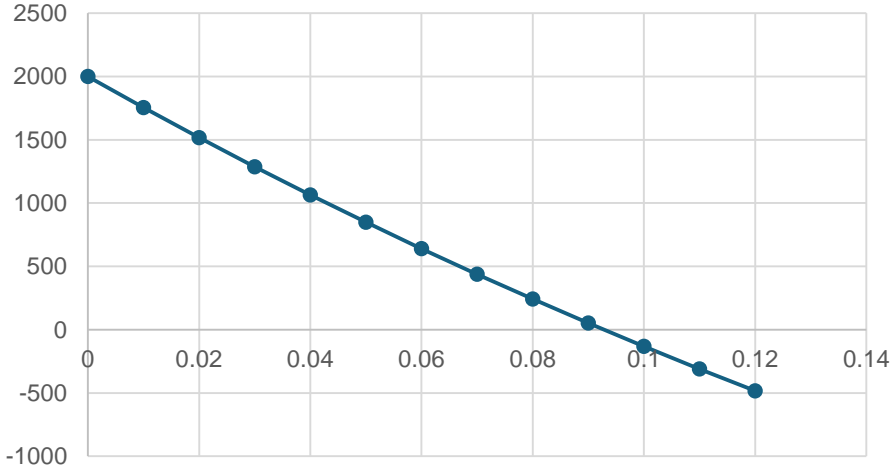




_____
_____
_____
_____
14 15
_____

Period	Cash flows	Discount rates for NPV profile	NPV
0	-10000	0	2000
1	3500	0.01	1754.186
2	4000	0.02	1516.498
3	4500	0.03	1286.579
		0.04	1064.093
<b>Interest rate</b>	0.05	0.05	848.7204
		0.06	640.1593
<b>NPV</b>	<b>848.720441</b>	0.07	438.1234
		0.08	242.3411
		0.09	52.55481
		0.1	-131.48
		0.11	-309.996
		0.12	-483.213

NPV profile





<b>Loan</b>	<b>Interest rate</b>	<b>N. of Periods</b>	<b>Payment</b>	<b>Total payment</b>	<b>Total interests</b>
10000	0.05	1	10500	10500	500
		2	5378.049	10756.09756	756.097561
		3	3672.086	11016.25694	1016.256939
		4	2820.118	11280.4733	1280.473304
		5	2309.748	11548.73991	1548.739906
		6	1970.175	11821.04809	1821.048087
		7	1728.198	12097.38729	2097.387291
		8	1547.218	12377.74509	2377.74509
		9	1406.901	12662.1072	2662.107198
		10	1295.046	12950.4575	2950.457497

Total interests paid

