



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF MANAGEMENT

QUALIFICATION: Bachelor of Business Management and Bachelor of Entrepreneurship	
QUALIFICATION CODE: 07BBMA and 07BENT	LEVEL: 7
COURSE CODE: BBF612S	COURSE NAME: BUSINESS FINANCE
DATE: November 2022	SESSION: 1st Opportunity
DURATION: 2H00 MINUTES	MARKS: 100

FIRST OPPORTUNITY EXAMINATION PAPER	
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Moderator	Mr E Mbanga

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer all questions.2. Read all the questions carefully before answering.3. Use the attached financial tables A, B, C &D.4. Marks for each question are indicated at the end of each question.5. This paper consist of two (2) sections.6. In Section 2, Questions 7 and 8 have two alternatives each, only select ONE alternative per question.7. Please ensure that your writing is legible, neat and presentable.

THIS QUESTION PAPER CONSISTS OF _10_ PAGES (Including this front page)
PERMISSABLE MATERIAL - Calculator

SECTION 1.

Multiple choice

[Sub-total marks: 11]

1. What is the present value of N\$250,000 receivable a year from now at an interest of 12%?
 - a. N\$223,214.29
 - b. N\$230,540.50
 - c. N\$224,560.56
 - d. N\$222,215.29
 - e. N\$221,214.29

2. If Kudu Limited invests N\$15,500 at the end of each year for 10 years in an investment account, earning an interest of 13% p.a compound interest. What will be the future value at the end of the period?
 - a. N\$52,622.50
 - b. N\$285,510
 - c. N\$84,103
 - d. N\$289,510
 - e. N\$230,540

3. Which is not a principle of budgeting?
 - a. Effective Communication
 - b. Follow-up and feedback
 - c. Profitability
 - d. Adaptability
 - e. a) and d)

4. The following measures are employed to prevent the loss of cash in a business:
 - a. Checklist system
 - b. Weighted scoring system
 - c. Regular stocktaking
 - d. Use of pre-numbered receipts
 - e. All of the above

5. The functions of a financial manager includes...
 - a. Making investment decisions
 - b. Making financing decisions
 - c. Ensuring profitability of the firm
 - d. a) and c)
 - e. All of the above

6. When financing assets, the financial manager should consider...
 - a. Cyclical variations and level of business activity
 - b. Competitive forces and taxes
 - c. Money and capital markets
 - d. Suitability
 - e. All of the above

7. Discounted cash flow techniques does not include
 - a. Net Present Value
 - b. Profitability index
 - c. Internal rate of return
 - d. Payback period
 - e. b) and d)

8. A firm uses 780 litres of diesel per day for its mining activities. After placing an order, it takes 4 days for the diesel to be delivered. What is this firm's reorder point?
 - a. 3,120 litres
 - b. 5,520 litres
 - c. 3,000 litres
 - d. 2130 litres
 - e. 4500 litres

9. Firms maintain safety stocks for the following reasons:
 - a. To provide for a sudden increase in the demand for a specific item in stock
 - b. To guard against delays in receiving orders
 - c. To carry additional stock
 - d. a) and b)
 - e. None of the above

10. Two of the three fundamental principles of financial management are:
 - a) Cost-benefit analysis and Break-even analysis
 - b) Break-even analysis and Risk-Return analysis
 - c) The Time Value of Money and Breakeven-Analysis
 - d) Risk-Return analysis and Cost-Benefit analysis
 - e) (a) and (c)

11. A business's liquidity ratio is at a sub-satisfactory level and the Net Working Capital is exceedingly below the company's set minimum. What corrective action will you recommend to remedy the problem soonest?
 - a) Increase the slow moving inventory by buying more stock.
 - b) Lengthen the average collection period.
 - c) Issue sales on credit to boost sales.
 - d) Improve effectiveness and efficiency by offering training.
 - e) None of the above.

SECTION 2.

Short questions

[Sub-total Marks: 89]

Question 1: Financial goals of a firm (6 marks)

Discuss the financial short-term and long term goals of a business.

Question 2: Financial statements (14 Marks)

Identify the 7 principal users of financial statements and explain the information and/or purpose for their interest.

Question 3: Ratio Analysis (15 Marks)

Summarise the different types of ratios, clearly indicating what each measures. Provide an example for each type.

Question 4: Profit planning and control (12 Marks)

Using the information provided below, calculate the breakeven in

- Units
- Monetary terms / value
- The margin of safety
- If the selling price is increased by 27%, what will be the breakeven point in unit?

Description	Parameters
Total sales units	50,000
Total sales turnover	N\$1,500,000
Total variable costs	N\$950,000
Total fixed costs	N\$450,000

Question 5: The time value of money (5 Marks)

Khomas Textiles CC may borrow N\$5,000,000 from the Development Bank for business expansion purposes. The bank will charge 16% and Khomas Textiles has agreed to make equal annual end-of-year payments over 10 years.

Calculate the monthly instalments that Khomas Textiles CC will be paying.

Question 6: Capital budgeting**(11 Marks)**

Nico Limited needs to procure a machine for their manufacturing business. They have an option between 2 machines that they can buy.

- Machine A will cost N\$95,000.
- Machine B will cost N\$85,500
- The cost of capital on the investment is 16%. They expect the following cash inflow for the next 6 years:

	Machine A	Machine B
Period	Cash Inflow (N\$)	
1	28,000	25,000
2	30,000	19,000
3	32,000	25,900
4	30,000	19,500
5	42,500	20,900
6	29,700	22,600

- Calculate the Net Present Values of both investments. (8 marks).
- Which machine would be advisable to procure under the NPV technique? Explain your answer (3 marks)

Question 7: Financing**(16 Marks)**

Select and answer either **one (1)** of the following two questions below:

- Compare and contrast equity versus debt financing.

OR

- A firm needs to have financing of N\$5,000,000 and is considering issuing shares at N\$20 each, additionally, the firm is evaluating five debt-equity ratios options, namely; 0%, 10%,20%, 30% or 40%.

- Based on the above debt-equity ratios, how many ordinary shares will be issued respectively?
- Based on the above debt equity ratios, how much debt financing will be required for each of the five options?
- Based on the above debt equity ratios, what will be the amount of ordinary shares under each respective proposed ratio?

Provide your answer in a table formats with the following headings:

Debt equity ratio	Number or ordinary shares	Par	Amount of ordinary shares	Amount of debt	Total financing

Question 8: Managing working capital

(10 Marks)

Select and answer either **one (1)** of the following two questions below

1. What measures will you put in place to prevent inventory loss?

OR

2. The Economic Order Quantity is based on the assumptions that sales can be forecast exactly, evenly distributed throughout the year and orders are received without delays.

Consider the following data of ABC Ltd:

Annual Sales = 133 000, carrying cost as percentage of inventory value of 19% of the inventory value, purchase price per unit is N\$350.00/unit and fixed costs of placing and receiving an order is N\$ 60.00 per order. Lastly, assuming a 52-week year.

1. Calculate the firm order quantity.
2. Determine thus the rate at which inventory varies in units.
3. Determine the average inventory on hand in units.

-END-

Table A Future-Value Interest Factors for R1 compounded at k per cent
for n Periods

Factors not included in this table may be calculated by means of the following equation:

$$FVIF = (1 + k)^n$$

n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	25%	30%
1	1,010	1,020	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,100	1,110	1,120	1,130	1,140	1,150	1,160	1,200	1,250	1,300
2	1,020	1,040	1,061	1,082	1,103	1,124	1,145	1,166	1,188	1,210	1,232	1,254	1,277	1,300	1,323	1,346	1,440	1,563	1,690
3	1,030	1,061	1,093	1,125	1,158	1,191	1,225	1,260	1,295	1,331	1,368	1,405	1,443	1,482	1,521	1,561	1,728	1,953	2,197
4	1,041	1,082	1,126	1,170	1,216	1,262	1,311	1,360	1,412	1,464	1,518	1,574	1,630	1,689	1,749	1,811	2,074	2,441	2,856
5	1,051	1,104	1,159	1,217	1,276	1,338	1,403	1,469	1,539	1,611	1,685	1,762	1,842	1,925	2,011	2,100	2,488	3,052	3,713
6	1,062	1,126	1,194	1,265	1,340	1,419	1,501	1,587	1,677	1,772	1,870	1,974	2,082	2,195	2,313	2,436	2,986	3,815	4,827
7	1,072	1,149	1,230	1,316	1,407	1,504	1,606	1,714	1,828	1,949	2,076	2,211	2,353	2,502	2,660	2,826	3,583	4,768	6,275
8	1,083	1,172	1,267	1,369	1,477	1,594	1,718	1,851	1,993	2,144	2,305	2,476	2,658	2,853	3,059	3,278	4,300	5,960	8,157
9	1,094	1,195	1,305	1,423	1,551	1,689	1,838	1,999	2,172	2,358	2,558	2,773	3,004	3,252	3,518	3,803	5,160	7,451	10,60
10	1,105	1,219	1,344	1,480	1,629	1,791	1,967	2,159	2,367	2,594	2,839	3,106	3,395	3,707	4,046	4,411	6,192	9,313	13,79
11	1,116	1,243	1,384	1,539	1,710	1,898	2,105	2,332	2,580	2,853	3,152	3,479	3,836	4,226	4,652	5,117	7,430	11,64	17,92
12	1,127	1,268	1,426	1,601	1,796	2,012	2,252	2,518	2,813	3,138	3,498	3,896	4,335	4,818	5,350	5,936	8,916	14,55	23,30
13	1,138	1,294	1,469	1,665	1,886	2,133	2,410	2,720	3,066	3,452	3,883	4,363	4,898	5,492	6,153	6,886	10,70	18,19	30,29
14	1,149	1,319	1,513	1,732	1,980	2,261	2,579	2,937	3,342	3,797	4,310	4,887	5,535	6,261	7,076	7,988	12,84	22,74	39,37
15	1,161	1,346	1,558	1,801	2,079	2,397	2,759	3,172	3,642	4,177	4,785	5,474	6,254	7,138	8,137	9,266	15,41	28,42	51,19
16	1,173	1,373	1,605	1,873	2,183	2,540	2,952	3,426	3,970	4,595	5,311	6,130	7,067	8,137	9,358	10,75	18,49	35,53	66,54
17	1,184	1,400	1,653	1,948	2,292	2,693	3,159	3,700	4,328	5,054	5,895	6,866	7,986	9,276	10,76	12,47	22,19	44,41	86,50
18	1,196	1,428	1,702	2,026	2,407	2,854	3,380	3,996	4,717	5,560	6,544	7,690	9,024	10,58	12,38	14,46	26,62	55,51	112,5
19	1,208	1,457	1,754	2,107	2,527	3,026	3,617	4,316	5,142	6,116	7,263	8,613	10,20	12,06	14,23	16,78	31,95	69,39	146,2
20	1,220	1,486	1,806	2,191	2,653	3,207	3,870	4,661	5,604	6,727	8,062	9,646	11,52	13,74	16,37	19,46	38,34	86,74	190,0
21	1,232	1,516	1,860	2,279	2,786	3,400	4,141	5,034	6,109	7,400	8,949	10,80	13,02	15,67	18,82	22,57	46,01	108,4	247,1
22	1,245	1,546	1,916	2,370	2,925	3,604	4,430	5,437	6,659	8,140	9,934	12,10	14,71	17,86	21,64	26,19	55,21	135,5	321,2
23	1,257	1,577	1,974	2,465	3,072	3,820	4,741	5,871	7,258	8,954	11,03	13,55	16,63	20,36	24,89	30,38	66,25	169,4	417,5
24	1,270	1,608	2,033	2,563	3,225	4,049	5,072	6,341	7,911	9,850	12,24	15,18	18,79	23,21	28,63	35,24	79,50	211,8	542,8
25	1,282	1,641	2,094	2,666	3,386	4,292	5,427	6,848	8,623	10,83	13,59	17,00	21,23	26,46	32,92	40,87	95,40	264,7	705,6
30	1,348	1,811	2,427	3,243	4,322	5,743	7,612	10,06	13,27	17,45	22,89	29,96	39,12	50,95	66,21	85,85	237,4	807,8	2620
35	1,417	2,000	2,814	3,946	5,516	7,686	10,68	14,79	20,41	28,10	38,57	52,80	72,07	98,10	133,2	180,3	590,7	2465	9728
40	1,489	2,208	3,262	4,801	7,040	10,29	14,97	21,72	31,41	45,26	65,00	93,05	132,8	188,9	267,9	378,7	1470	7523	36119
45	1,565	2,438	3,782	5,841	8,985	13,76	21,00	31,92	48,33	72,89	109,5	164,0	244,6	363,7	538,8	795,4	3657	22959	.
50	1,645	2,692	4,384	7,107	11,47	18,42	29,46	46,90	74,36	117,4	184,6	289,0	450,7	700,2	1084	1671	9100	70065	.

* FVIF - 99999

Table B Future-Value Interest Factors for a R1 annuity compounded at k per cent for n Periods

Factors not included in this table may be calculated by means of the following equation:

$$FVIFA = \sum_{t=1}^n (1 + k)^{t-1}$$

n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	25%	30%
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	2.010	2.020	2.030	2.040	2.050	2.060	2.070	2.080	2.090	2.100	2.110	2.120	2.130	2.140	2.150	2.160	2.200	2.250	2.300
3	3.030	3.060	3.091	3.122	3.153	3.184	3.215	3.246	3.278	3.310	3.342	3.374	3.407	3.440	3.473	3.506	3.640	3.813	3.990
4	4.060	4.122	4.184	4.246	4.310	4.375	4.440	4.506	4.573	4.641	4.710	4.779	4.850	4.921	4.993	5.066	5.368	5.766	6.187
5	5.101	5.204	5.309	5.416	5.526	5.637	5.751	5.867	5.985	6.105	6.228	6.353	6.480	6.610	6.742	6.877	7.442	8.207	9.043
6	6.152	6.308	6.468	6.633	6.802	6.975	7.153	7.336	7.523	7.716	7.913	8.115	8.323	8.536	8.754	8.977	9.930	11,259	12,756
7	7.214	7.434	7.662	7.898	8.142	8.394	8.654	8,923	9,200	9,487	9,783	10,089	10,405	10,730	11,067	11,414	12,916	15,073	17,583
8	8.286	8.583	8.892	9.214	9.549	9.897	10.26	10.64	11.03	11.44	11.86	12.30	12.76	13.23	13.73	14.24	16.50	19.84	23.86
9	9.369	9.755	10.16	10.58	11.03	11.49	11.98	12.49	13.02	13.58	14.16	14.78	15.42	16.09	16.79	17.52	20.80	25.80	32.01
10	10.46	10.95	11.46	12.01	12.58	13.18	13.82	14.49	15.19	15.94	16.72	17.55	18.42	19.34	20.30	21.32	25.96	33.25	42.62
11	11.57	12.17	12.81	13.49	14.21	14.97	15.78	16.65	17.56	18.53	19.56	20.65	21.81	23.04	24.35	25.73	32.15	42.57	56.41
12	12.68	13.41	14.19	15.03	15.92	16.87	17.89	18.98	20.14	21.38	22.71	24.13	25.65	27.27	29.00	30.85	39.58	54.21	74.33
13	13.81	14.68	15.62	16.63	17.71	18.88	20.14	21.50	22.95	24.52	26.21	28.03	29.98	32.09	34.35	36.79	48.50	68.76	97.63
14	14.95	15.97	17.09	18.29	19.60	21.02	22.55	24.21	26.02	27.97	30.09	32.39	34.88	37.58	40.50	43.67	59.20	86.95	127.9
15	16.10	17.29	18.60	20.02	21.58	23.28	25.13	27.15	29.36	31.77	34.41	37.28	40.42	43.84	47.58	51.66	72.04	109.7	167.3
16	17.26	18.64	20.16	21.82	23.66	25.67	27.89	30.32	33.00	35.95	39.19	42.75	46.67	50.98	55.72	60.93	87.44	138.1	218.5
17	18.43	20.01	21.76	23.70	25.84	28.21	30.84	33.75	36.97	40.54	44.50	48.88	53.74	59.12	65.08	71.67	105.9	173.6	285.0
18	19.61	21.41	23.41	25.65	28.13	30.91	34.00	37.45	41.30	45.60	50.40	55.75	61.73	68.39	75.84	84.14	128.1	218.0	371.5
19	20.81	22.84	25.12	27.67	30.54	33.76	37.38	41.45	46.02	51.16	56.94	63.44	70.75	78.97	88.21	98.60	154.7	273.6	484.0
20	22.02	24.30	26.87	29.78	33.07	36.79	41.00	45.76	51.16	57.27	64.20	72.05	80.95	91.02	102.4	115.4	186.7	342.9	630.2
21	23.24	25.78	28.68	31.97	35.72	39.99	44.87	50.42	56.76	64.00	72.27	81.70	92.47	104.8	118.8	134.8	225.0	429.7	820.2
22	24.47	27.30	30.54	34.25	38.51	43.39	49.01	55.46	62.87	71.40	81.21	92.50	105.5	120.4	137.6	157.4	271.0	538.1	1067
23	25.72	28.84	32.45	36.62	41.43	47.00	53.44	60.89	69.53	79.54	91.15	104.6	120.2	138.3	159.3	183.6	326.2	673.6	1388
24	26.97	30.42	34.43	39.08	44.50	50.82	58.18	66.76	76.79	88.50	102.2	118.2	136.8	158.7	184.2	214.0	392.5	843.0	1806
25	28.24	32.03	36.46	41.65	47.73	54.86	63.25	73.11	84.70	98.35	114.4	133.3	155.6	181.9	212.8	249.2	472.0	1055	2349
30	34.78	40.57	47.58	56.08	66.44	79.06	94.46	113.3	136.3	164.5	199.0	241.3	293.2	356.8	434.7	530.3	1182	3227	8730
35	41.66	49.99	60.46	73.65	90.32	111.4	138.2	172.3	215.7	271.0	341.6	431.7	546.7	693.6	881.2	1121	2948	9857	32423
40	48.89	60.40	75.40	95.03	120.8	154.8	199.6	259.1	337.9	442.6	581.8	767.1	1014	1342	1779	2361	7344	30089	.
45	56.48	71.89	92.72	121.0	159.7	212.7	285.7	386.5	525.9	718.9	986.6	1358	1874	2591	3585	4965	18281	91831	.
50	64.46	84.58	112.8	152.7	209.3	290.3	406.5	573.8	815.1	1164	1669	2400	3460	4995	7218	10436	45497	.	.

* FVIFA - 99999

Table C Present-Value Interest Factors for R¹ Discounted at k per cent
for n Periods

Factors not included in this table may be calculated by means of the following equation:

$$PVIF = \frac{1}{(1 + k)^n}$$

n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	25%	30%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877	0.870	0.862	0.833	0.800	0.769
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.769	0.756	0.743	0.694	0.640	0.592
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675	0.658	0.641	0.579	0.512	0.455
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592	0.572	0.552	0.482	0.410	0.350
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519	0.497	0.476	0.402	0.328	0.269
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456	0.432	0.410	0.335	0.262	0.207
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400	0.376	0.354	0.279	0.210	0.159
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351	0.327	0.305	0.233	0.168	0.123
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308	0.284	0.263	0.194	0.134	0.094
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270	0.247	0.227	0.162	0.107	0.073
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237	0.215	0.195	0.135	0.086	0.056
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208	0.187	0.168	0.112	0.069	0.043
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182	0.163	0.145	0.093	0.055	0.033
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160	0.141	0.125	0.078	0.044	0.025
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140	0.123	0.108	0.065	0.035	0.020
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218	0.188	0.163	0.141	0.123	0.107	0.093	0.054	0.028	0.015
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198	0.170	0.146	0.125	0.108	0.093	0.080	0.045	0.023	0.012
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180	0.153	0.130	0.111	0.095	0.081	0.069	0.038	0.018	0.009
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164	0.138	0.116	0.098	0.083	0.070	0.060	0.031	0.014	0.007
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104	0.087	0.073	0.061	0.051	0.026	0.012	0.005
21	0.811	0.660	0.538	0.439	0.359	0.294	0.242	0.199	0.164	0.135	0.112	0.093	0.077	0.064	0.053	0.044	0.022	0.009	0.004
22	0.803	0.647	0.522	0.422	0.342	0.278	0.226	0.184	0.150	0.123	0.101	0.083	0.068	0.056	0.046	0.038	0.018	0.007	0.003
23	0.795	0.634	0.507	0.406	0.326	0.262	0.211	0.170	0.138	0.112	0.091	0.074	0.060	0.049	0.040	0.033	0.015	0.006	0.002
24	0.788	0.622	0.492	0.390	0.310	0.247	0.197	0.158	0.126	0.102	0.082	0.066	0.053	0.043	0.035	0.028	0.013	0.005	0.002
25	0.780	0.610	0.478	0.375	0.295	0.233	0.184	0.146	0.116	0.092	0.074	0.059	0.047	0.038	0.030	0.024	0.010	0.004	0.001
30	0.742	0.552	0.412	0.308	0.231	0.174	0.131	0.099	0.075	0.057	0.044	0.033	0.026	0.020	0.015	0.012	0.004	0.001	·
35	0.706	0.500	0.355	0.253	0.181	0.130	0.094	0.068	0.049	0.036	0.026	0.019	0.014	0.010	0.008	0.006	0.002	·	·
40	0.672	0.453	0.307	0.208	0.142	0.097	0.067	0.046	0.032	0.022	0.015	0.011	0.008	0.005	0.004	0.003	0.001	·	·
45	0.639	0.410	0.264	0.171	0.111	0.073	0.048	0.031	0.021	0.014	0.009	0.006	0.004	0.003	0.002	0.001	0.000	·	·
50	0.608	0.372	0.228	0.141	0.087	0.054	0.034	0.021	0.013	0.009	0.005	0.003	0.002	0.001	0.001	0.001	·	·	·

¹ PVIF = .000 when rounded to three decimal places.

Table D Present-Value Interest Factors for a R1 annuity discounted at k per cent for n Periods

Factors not included in this table may be calculated by means of the following equation:

$$PVIFA = \sum_{t=1}^n \frac{1}{(1+k)^t}$$

n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	20%	25%	30%
1	0,990	0,980	0,971	0,962	0,952	0,943	0,935	0,926	0,917	0,909	0,901	0,893	0,885	0,877	0,870	0,862	0,833	0,800	0,769
2	1,970	1,942	1,913	1,886	1,859	1,833	1,808	1,783	1,759	1,736	1,713	1,690	1,668	1,647	1,626	1,605	1,528	1,440	1,361
3	2,941	2,884	2,829	2,775	2,723	2,673	2,624	2,577	2,531	2,487	2,444	2,402	2,361	2,322	2,283	2,246	2,106	1,952	1,816
4	3,902	3,808	3,717	3,630	3,546	3,465	3,387	3,312	3,240	3,170	3,102	3,037	2,974	2,914	2,855	2,798	2,589	2,362	2,166
5	4,853	4,713	4,580	4,452	4,329	4,212	4,100	3,993	3,890	3,791	3,696	3,605	3,517	3,433	3,352	3,274	2,991	2,689	2,436
6	5,795	5,601	5,417	5,242	5,076	4,917	4,767	4,623	4,486	4,355	4,231	4,111	3,998	3,889	3,784	3,685	3,326	2,951	2,643
7	6,728	6,472	6,230	6,002	5,786	5,582	5,389	5,206	5,033	4,868	4,712	4,564	4,423	4,288	4,160	4,039	3,605	3,161	2,802
8	7,652	7,325	7,020	6,733	6,463	6,210	5,971	5,747	5,535	5,335	5,146	4,968	4,799	4,639	4,487	4,344	3,837	3,329	2,925
9	8,566	8,162	7,786	7,435	7,108	6,802	6,515	6,247	5,995	5,759	5,537	5,328	5,132	4,946	4,772	4,607	4,031	3,463	3,019
10	9,471	8,983	8,530	8,111	7,722	7,360	7,024	6,710	6,418	6,145	5,889	5,650	5,426	5,216	5,019	4,833	4,192	3,571	3,092
11	10,37	9,787	9,253	8,760	8,306	7,887	7,499	7,139	6,805	6,495	6,207	5,938	5,687	5,453	5,234	5,029	4,327	3,656	3,147
12	11,26	10,58	9,954	9,385	8,863	8,384	7,943	7,536	7,161	6,814	6,492	6,194	5,918	5,660	5,421	5,197	4,439	3,725	3,190
13	12,13	11,35	10,63	9,986	9,394	8,853	8,358	7,904	7,487	7,103	6,750	6,424	6,122	5,842	5,583	5,342	4,533	3,780	3,223
14	13,00	12,11	11,30	10,56	9,899	9,295	8,745	8,244	7,786	7,367	6,982	6,628	6,302	6,002	5,724	5,468	4,611	3,824	3,249
15	13,87	12,85	11,94	11,12	10,38	9,712	9,108	8,559	8,061	7,606	7,191	6,811	6,462	6,142	5,847	5,575	4,675	3,859	3,268
16	14,72	13,58	12,56	11,65	10,84	10,11	9,447	8,851	8,313	7,824	7,379	6,974	6,604	6,265	5,954	5,668	4,730	3,887	3,283
17	15,56	14,29	13,17	12,17	11,27	10,48	9,763	9,122	8,544	8,022	7,549	7,120	6,729	6,373	6,047	5,749	4,775	3,910	3,295
18	16,40	14,99	13,75	12,66	11,69	10,83	10,06	9,372	8,756	8,201	7,702	7,250	6,840	6,467	6,128	5,818	4,812	3,928	3,304
19	17,23	15,68	14,32	13,13	12,09	11,16	10,34	9,604	8,950	8,365	7,839	7,366	6,938	6,550	6,198	5,877	4,843	3,942	3,311
20	18,05	16,35	14,88	13,59	12,46	11,47	10,59	9,818	9,129	8,514	7,963	7,469	7,025	6,623	6,259	5,929	4,870	3,954	3,316
21	18,85	17,01	15,42	14,03	12,82	11,76	10,84	10,02	9,292	8,649	8,075	7,562	7,102	6,687	6,312	5,973	4,891	3,963	3,320
22	19,65	17,66	15,94	14,45	13,16	12,04	11,06	10,20	9,442	8,772	8,176	7,645	7,170	6,743	6,359	6,011	4,909	3,970	3,323
23	20,45	18,29	16,44	14,86	13,49	12,30	11,27	10,37	9,580	8,883	8,266	7,718	7,230	6,792	6,399	6,044	4,925	3,976	3,325
24	21,24	18,91	16,94	15,25	13,80	12,55	11,47	10,53	9,707	8,985	8,348	7,784	7,283	6,835	6,434	6,073	4,937	3,981	3,327
25	22,02	19,52	17,41	15,62	14,09	12,78	11,65	10,67	9,823	9,077	8,422	7,843	7,330	6,873	6,464	6,097	4,948	3,985	3,329
30	25,81	22,40	19,60	17,29	15,37	13,76	12,41	11,26	10,27	9,427	8,694	8,055	7,496	7,003	6,566	6,177	4,979	3,995	3,332
35	29,41	25,00	21,49	18,66	16,37	14,50	12,95	11,65	10,57	9,644	8,855	8,176	7,586	7,070	6,617	6,215	4,992	3,998	3,333
40	32,83	27,36	23,11	19,79	17,16	15,05	13,33	11,92	10,76	9,779	8,951	8,244	7,634	7,105	6,642	6,233	4,997	3,999	3,333
45	36,09	29,49	24,52	20,72	17,77	15,46	13,61	12,11	10,88	9,863	9,008	8,283	7,661	7,123	6,654	6,242	4,999	4,000	3,333
50	39,20	31,42	25,73	21,48	18,25	15,76	13,80	12,23	10,96	9,915	9,042	8,304	7,675	7,133	6,661	6,246	4,999	4,000	3,333

Heimat 18/10/22