



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF GOVERNANCE AND MANAGEMENT SCIENCES

QUALIFICATION : BACHELOR OF BUSINESS MANAGEMENT	
QUALIFICATION CODE: 07BHRM	COURSE LEVEL: 5
COURSE CODE: BBF612S	COURSE NAME: BUSINES FINANCE
SESSION: DECEMBER 2025	PAPER: THEORY
DURATION: 2 HOURS	MARKS: 100
SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Ms Cynthia Kauami Mrs B. Ndungaua
MODERATOR:	Mr. ERNEST MBANGA

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions.2. Show all formulae and calculations as marks will be awarded for them.3. Write neatly and clearly.4. Number the answers clearly <p style="text-align: center;">PERMISSIBLE MATERIALS (PEN, RULER)</p>

THIS PAPER CONSISTS OF 4 PAGES (Including this front page)

SECTION A:

[51 MARKS]

Question 1: Financial Goal of a Firm

(16 marks)

(2 marks per correct answer)

Briefly discuss:

1. the **competitive forces** a business/firm faces in the competitive environment it operates in, and
2. **the strategies** that can be used to gain a competitive advantage.

Question 2: Ratio Analysis

(8 marks)

(4 marks per method x 2 = 8 marks)

Ratio analysis is not only about applying a formula to financial data in order to calculate a given ratio. The interpretation is important and as such meaningful comparison is needed. Briefly discuss the two types of comparisons, including their key considerations and importance.

Question 3: Understanding Financial Statements

(12 marks)

(2 marks per user x 6 = 12 marks)

Identify and discuss six (6) principal users of Financial Statements who may also be interested in the comparisons discussed under (question 2), and the objectives and interests they have in financial statements.

Question 4: Financing

(15 marks)

Name and briefly explain the characteristics that distinguish debt from equity as a source of finance. (3 marks for each answer)

SECTION B**[49 Marks]****Question 5: Break-even analysis****(12 Marks)**

Dynamo Garments (PTY) Ltd is a newly established garment manufacturing company in Otavi. They are seeking to determine the breakeven (BEP) of their prestigious CELL'e T-Shirts. Their expected sales is 18 000 units to be sold at 180 per unit. The total fixed costs is N\$800 000 while the variable cost per unit is N\$79. You are required to calculate BEP in:

- a) Units (volume) (3 marks)
- b) Monetary terms (value) (3 marks)
- c) The margin of safety ratio (2 marks)
- d) If a selling commission of N\$ 10.00 per unit is introduced, what will the break-even point in units be? Would a commission be an advisable strategy? Please elaborate briefly. (4 marks)

Question 6: Time value of money**(17 marks)**

Note: Kindly use the financial tables on pages 5 and 6, Annexure 1 to answer the questions below.

1. A bank provides CCC Ltd with a loan of N\$2,500 000, repayable over 12 years, where the interest rate is 9%. You are required to determine the following:
 - i) annual payments to Amortise the loan (3 marks)
 - ii) using the annual payment above, distinguish between the interest payable and principal amount payable for the first 3 years only. (9 marks)
2. A decision is taken to invest N\$100,000 annuity each year at 6% return over the next 5 years, meaning equal amounts of N\$100 000 over the next 5 years. The firm needs to decide whether to make deposits at the beginning of each year or at the end of each year. You are called into a meeting as a recent graduate who has business finance knowledge. Calculate the future value of each of these options, and recommend the best investment option: (kindly show calculations to get full marks and choice you recommend) (5 marks)
 - i. Option 1: Investment of annuities at the beginning of each year over 5 years
 - ii. Option 2: Investment of annuities at the end of each year over 5 years

Question 7: Capital Budgeting

(20 marks)

You have an opportunity to invest in an income generating asset at an initial cost of N\$180 000 and you are expecting an annual cash inflow from this investment of N\$28 000 for the first 4 years. Due to improving technology, you will have to upgrade this asset at an additional cost of N\$35 000 early in the 5th year, whereafter the expected cash inflow increases to N\$33 000 for the next 6 years, before the asset has to be replaced. The cost of capital (discount rate) is set at 10%.

Note: Kindly use the financial tables on pages 5 and 6, Annexure 1 to answer the questions below.

Determine:

- | | |
|--|------------|
| i) The net present value (NPV) | (12 marks) |
| ii) Payback period | (4 marks) |
| iii) The Profitability Index | (2 marks) |
| iv) Would you invest in this asset? Why? | (2 marks) |

-END-

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

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

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

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	*	*	*

* 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

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	18,86	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	19,66	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	20,46	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	18,26	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