SECTION A: 100 MARKS
BAHAGIAN A: 100 MARKAH

INSTRUCTION:
This section consists of **FOUR (4)** quantitative questions. Answer **ALL** questions.

ARAHAN:
*Bahagian ini mengandungi **EMPAT (4)** soalan kuantitatif. Jawab **SEMUA** soalan.*

QUESTION 1
SOALAN 1

CLO1
C3

(a) En Fuad having a cash of RM20,000. He plans to invest his money in two types of shares, Bank Rakyat and Koperasi Niaga. After one year, he will gain an annual income of RM2,200 where Bank Rakyat shares will payback 15% per year while Koperasi Niaga share will payback 10% per year respectively. How much provisions does he need for each shares?

En Fuad mempunyai wang tunai sebanyak RM20,000. Beliau bercadang untuk melaburkan wang tersebut dalam dua saham, saham Bank Rakyat dan saham Koperasi Niaga. Selepas setahun, beliau dijangka mendapat pulangan tahunan sebanyak RM2,200 di mana saham Bank Rakyat mendapat pulangan sebanyak 15% setahun sementara saham Koperasi Niaga sebanyak 10% setahun. Berapa banyak bahagian yang diperlukan bagi setiap saham tersebut?

[5 marks]

[5 markah]

(b) Aida Harith Enterprise produced a baby product with variable cost of RM2.50 per unit. The fixed cost is RM80,000 and 50 units were sold at RM375.00.

Aida Harith Enterprise mengeluarkan produk bayi dengan kos berubah sebanyak RM2.50 seunit. Kos tetap adalah RM80,000 dan unit yang dijual adalah pada RM375.00 bagi 50 unit.

POLiTEKNiK
Jabatan Pengajian Politeknik

BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENGAJIAN POLITEKNIK
KEMENTERIAN PENGAJIAN TINGGI

JABATAN PERDAGANGAN

PEPERIKSAAN AKHIR
SESI DISEMBER 2012

PB203: BUSINESS MATHEMATICS

TARIKH   : 23 APRIL 2013
TEMPOH : 2 JAM (2.30 P.M – 4.30 P.M)

Kertas ini mengandungi **LAPAN (8)** halaman bercetak.
Bahagian A: Kuantitatif (4 soalan)
Dokumen sokongan yang disertakan : Jadual PVIF & PVIFA

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

SULIT

QUESTION 2

SOALAN 2

CLO1
C2

(a) Find the maturity value for a loan of RM 850 at 9% per annum for 6 months.

Dapatkan nilai matang bagi satu pinjaman yang berjumlah RM 850 pada kadar faedah 9% untuk tempoh 6 bulan.   [4 marks]

[4 markah]

(b) A DVD player is priced at RM 1,200 cash. It also can be purchased with a ¼ down payment. The balanced must be paid by equal monthly payment with interest rate 8% for 18 months.

Perakam DVD berharga RM 1,200 secara tunai atau boleh di beli dengan membuat bayaran pendahuluan sebanyak ¼ dari harga tersebut. Selebihnya bayaran boleh dibuat secara ansuran bulanan dengan kadar faedah 8% untuk tempoh 18 bulan.

CLO1
C2

i. What is the interest charged?   [3marks]

Berapakah faedah yang telah dikenakan?   *[3 markah]*

CLO1
C2

ii. Determine the instalment price of the DVD player on the instalment plan.

Tentukan jumlah harga ansuran bagi perakam DVD di bawah skim ansuran.

[4 marks]
[4 markah]

CLO1
C3

iii. How much is the monthly payment on the purchase?   [4 marks]

Berapakah bayaran bulanan yang dikenakan?   *[4 markah]*

CLO1
C3

iv. If the purchaser wants to pay all his debt after his 10th payment, what is the amount of the early payments?

Sekiranya pembeli bercadang untuk membayar kesemua hutangnya selepas membuat bayaran ke-10, berapakah jumlah yang perlu di bayar sebagai bayaran penjelasan awal?   [7 marks]

[7 markah]

CLO2
C3

i. How much profit will be gained when 30,000 units were sold?

Berapa banyak keuntungan yang diperolehi sekiranya 30,000 unit dapat dijual?

[10 marks]
[10 markah]

CLO2
C3

ii. Calculate the profit gained if the fixed cost reduced by 20%.

Berapakah keuntungan yang akan diperolehi sekiranya kos tetap berkurangan sebanyak 20%.

[10 marks]
[10 markah]

As a financial manager of the company, you are required to evaluate the best choice based on the following techniques:

Sebagai pengurus kewangan, anda dikehendaki membuat penilaian mengenai pilihan terbaik berdasarkan teknik-teknik berikut:

CLO1
C3

(a) Payback period   [6 marks]

    Tempoh bayar balik   *[6 markah]*

CLO1
C3

(b) Net present value (NPV)   [10 marks]

    Nilai Kini Bersih   *[10 markah]*

CLO1
C3

(c) Profitability index (PI)   [6 marks]

    Indeks Keberuntungan   *[6 markah]*

CLO1
C3

(d) Determine which machine should be chosen? Why?   [3 marks]

    Tentukan mesin mana yang harus dipilih. Kenapa?   *[3 markah]*

CLO1
C2

(c) Find the compound amount for RM 3,200 invested for 5 years at 8% compounded annually.

Dapatkan nilai kompaun bagi satu pelaburan yang bernilai RM 3,200 untuk tempoh 5 tahun yang di kompaunkan secara tahunan   [3 marks]

                                         [3 markah]

QUESTION 3
SOALAN 3

ABC Corporation is considering buying a new machine to replace the existing machine. The major purpose of the replacement is to reduce company's production cost. The company has two choices, EX Machine and EP Machine. The initial outlay is RM120,000 and RM138,000 respectively. After 5 years, EX Machine has a scrap value of RM4,000 whereas no scrap value for EP Machine . The cost of capital is 10%. The annual cash flows expected from each machine is given as below:

ABC Corporation sedang mempertimbangkan untuk membeli mesin baru untuk menggantikan mesin sedia ada. Tujuan utama penggantian ini adalah untuk mengurangkan kos pengeluaran syarikat. Syarikat mempunyai pilihan iaitu untuk membeli Mesin EX atau Mesin EP. Aliran tunai permulaan masing-masing ialah RM120,000 dan RM138,000. Selepas 5 tahun Mesin EX akan mempunyai nilai skrap RM4,000 manakala Mesin EP tiada nilai skrap. Kos modal yang terlibat ialah 10%. Aliran tunai tahunan bagi kedua-dua mesin adalah seperti berikut:

YEAR/ TAHUN	0	1	2	3	4	5
EX	(120,000)	50,000	45,000	38,000	50,000	60,000
EP	(138,000)	50,000	50,000	50,000	50,000	50,000

The transportation cost is given as follow:

Kos pengangkutan yang terlibat adalah seperti dalam jadual yang berikut.

From Factory/ Dari Kilang	To Warehouse/Ke Gudang		
	Arau	Butterworth	Cheras
Mukah	5	8	6
Nilai	10	9	11
Pasir Gudang	7	6	8

The company would like to find the minimum cost to meet the demands of the warehouses.

Syarikat tersebut hendak mengetahui kos pengangkutan yang paling sedikit untuk memenuhi permintaan daripada pihak gudang.

CLO1
C2

(a) Draw a transportation table.   [3marks]

   Bina jadual pengangkutan.   [*3markah*]

CLO1
C3

(b) Locate the number of employees using initial feasible solutions below:

   Dapatkan penyelesaian permulaan dengan menggunakan kaedah-kaedah berikut:

CLO1
C3

   i.   The Northwest corner rule;   [10 marks]

        Kaedah Pepenjuru Barat Laut   [*10 markah*]

   ii. The Least cost method   [10 marks]

        Kaedah Kos Minimum   [*10 markah*]

CLO1
C3

(c) Which solution is the best?   [2 marks]

   Penyelesaian manakah yang terbaik?   [*2 markah*]

SOALAN TAMAT

QUESTION 4
SOALAN 4

Aisya Company produced crackers in a factory located in Mukah, Nilai and Pasir Gudang. The crackers are exported to the warehouses in Arau, Butterworth and Cheras. The factories in Mukah, Nilai and Pasir Gudang have produced crackers (in kg) as stated below:

Aisya Company telah mengeluarkan kerepek di sebuah kilang yang terletak di Mukah, Nilai dan Pasir Gudang. Syarikat tersebut hendak mengeksport kerepek-kerepek tersebut ke gudang-gudang mereka yang terletak di Arau, Butterworth dan Cheras. Kilang-kilang di Mukah, Nilai dan Pasir Gudang mengeluarkan kerepek (dalam kg) seperti berikut:

Factory / *Kilang*	Crackers / *Kerepek* (kg)
Mukah	70
Nilai	100
Pasir Gudang	30

The total number of crackers at three warehouses is given as below:

Jumlah kerepek yang terkumpul di ketiga-tiga gudang tersebut adalah seperti di bawah:

Factory / *Kilang*	Crackers / *Kerepek* (kg)
Arau	50
Butterworth	90
Cheras	60

Table A-2 • Present Value of an Annuity of $1 per Period for n Periods.

Equation:

$$PVIFA_{i,n} = \sum_{t=1}^{n} \frac{1}{(1+i)^t} = \frac{1 - \frac{1}{(1+i)^n}}{i} = \frac{1}{i} - \frac{1}{i(1+i)^n}$$
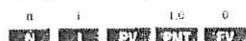
Financial Calculator Keys:

| n | i | PV | PMT | FV |

TABLE VALUE

Number of Periods	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.8929	0.8772	0.8696	0.8621	0.8475	0.8333	0.8065	0.7813	0.7576
2	1.9704	1.9416	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.6901	1.6467	1.6257	1.6052	1.5656	1.5278	1.4568	1.3916	1.3315
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4018	2.3216	2.2832	2.2459	2.1743	2.1065	1.9813	1.8684	1.7663
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.0373	2.9137	2.8550	2.7982	2.6901	2.5887	2.4043	2.2410	2.0957
5	4.8534	4.7135	4.5797	4.4518	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6048	3.4331	3.3522	3.2743	3.1272	2.9906	2.7454	2.5320	2.3452
6	5.7955	5.6014	5.4172	5.2421	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.1114	3.8887	3.7845	3.6847	3.4976	3.3255	3.0205	2.7594	2.5342
7	6.7282	6.4720	6.2303	6.0021	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.5638	4.2883	4.1604	4.0386	3.8115	3.6046	3.2423	2.9370	2.6775
8	7.6517	7.3255	7.0197	6.7327	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	4.9676	4.6389	4.4873	4.3436	4.0776	3.8372	3.4212	3.0758	2.7860
9	8.5660	8.1622	7.7861	7.4353	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.3282	4.9464	4.7716	4.6065	4.3030	4.0310	3.5655	3.1842	2.8681
10	9.4713	8.9826	8.5302	8.1109	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.6502	5.2161	5.0188	4.8332	4.4941	4.1925	3.6819	3.2689	2.9304
11	10.3676	9.7868	9.2526	8.7605	8.3064	7.8869	7.4987	7.1390	6.8052	6.4951	5.9377	5.4527	5.2337	5.0286	4.6560	4.3271	3.7757	3.3351	2.9776
12	11.2551	10.5753	9.9540	9.3851	8.8633	8.3838	7.9427	7.5361	7.1607	6.8137	6.1944	5.6603	5.4206	5.1971	4.7932	4.4392	3.8514	3.3868	3.0133
13	12.1337	11.3484	10.6350	9.9856	9.3936	8.8527	8.3577	7.9038	7.4869	7.1034	6.4235	5.8424	5.5831	5.3423	4.9095	4.5327	3.9124	3.4272	3.0404
14	13.0037	12.1062	11.2961	10.5631	9.8986	9.2950	8.7455	8.2442	7.7862	7.3667	6.6282	6.0021	5.7245	5.4675	5.0081	4.6106	3.9616	3.4587	3.0609
15	13.8651	12.8493	11.9379	11.1184	10.3797	9.7122	9.1079	8.5595	8.0607	7.6061	6.8109	6.1422	5.8474	5.5755	5.0916	4.6755	4.0013	3.4834	3.0764
16	14.7179	13.5777	12.5611	11.6523	10.8378	10.1059	9.4466	8.8514	8.3126	7.8237	6.9740	6.2651	5.9542	5.6685	5.1624	4.7296	4.0333	3.5026	3.0882
17	15.5623	14.2919	13.1661	12.1657	11.2741	10.4773	9.7632	9.1216	8.5436	8.0216	7.1196	6.3729	6.0472	5.7487	5.2223	4.7746	4.0591	3.5177	3.0971
18	16.3983	14.9920	13.7535	12.6593	11.6896	10.8276	10.0591	9.3719	8.7556	8.2014	7.2497	6.4674	6.1280	5.8178	5.2732	4.8122	4.0799	3.5294	3.1039
19	17.2260	15.6785	14.3238	13.1339	12.0853	11.1581	10.3356	9.6036	8.9501	8.3649	7.3658	6.5504	6.1982	5.8775	5.3162	4.8435	4.0967	3.5386	3.1090
20	18.0456	16.3514	14.8775	13.5903	12.4622	11.4699	10.5940	9.8181	9.1285	8.5136	7.4694	6.6231	6.2593	5.9288	5.3527	4.8696	4.1103	3.5458	3.1129
21	18.8570	17.0112	15.4150	14.0292	12.8212	11.7641	10.8355	10.0168	9.2922	8.6487	7.5620	6.6870	6.3125	5.9731	5.3837	4.8913	4.1212	3.5514	3.1158
22	19.6604	17.6580	15.9369	14.4511	13.1630	12.0416	11.0612	10.2007	9.4424	8.7715	7.6446	6.7429	6.3587	6.0113	5.4099	4.9094	4.1300	3.5558	3.1180
23	20.4558	18.2922	16.4436	14.8568	13.4886	12.3034	11.2722	10.3711	9.5802	8.8832	7.7184	6.7921	6.3988	6.0442	5.4321	4.9245	4.1371	3.5592	3.1197
24	21.2434	18.9139	16.9355	15.2470	13.7986	12.5504	11.4693	10.5288	9.7066	8.9847	7.7843	6.8351	6.4338	6.0726	5.4509	4.9371	4.1428	3.5619	3.1210
25	22.0232	19.5235	17.4131	15.6221	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	7.8431	6.8729	6.4641	6.0971	5.4669	4.9476	4.1474	3.5640	3.1220
26	22.7952	20.1210	17.8768	15.9828	14.3752	13.0032	11.8258	10.8100	9.9290	9.1609	7.8957	6.9061	6.4906	6.1182	5.4804	4.9563	4.1511	3.5656	3.1227
27	23.5596	20.7069	18.3270	16.3296	14.6430	13.2105	11.9867	10.9352	10.0266	9.2372	7.9426	6.9352	6.5135	6.1364	5.4919	4.9636	4.1542	3.5669	3.1233
28	24.3164	21.2813	18.7641	16.6631	14.8981	13.4062	12.1371	11.0511	10.1161	9.3066	7.9844	6.9607	6.5335	6.1520	5.5016	4.9697	4.1566	3.5679	3.1237
29	25.0658	21.8444	19.1885	16.9837	15.1411	13.5907	12.2777	11.1584	10.1983	9.3696	8.0218	6.9830	6.5509	6.1656	5.5098	4.9747	4.1585	3.5687	3.1240
30	25.8077	22.3965	19.6004	17.2920	15.3725	13.7648	12.4090	11.2578	10.2737	9.4269	8.0552	7.0027	6.5660	6.1772	5.5168	4.9789	4.1601	3.5693	3.1242
35	29.4086	24.9986	21.4872	18.6646	16.3742	14.4982	12.9477	11.6546	10.5668	9.6442	8.1755	7.0700	6.6166	6.2153	5.5386	4.9915	4.1644	3.5708	3.1248
40	32.8347	27.3555	23.1148	19.7928	17.1591	15.0463	13.3317	11.9246	10.7574	9.7791	8.2438	7.1050	6.6418	6.2335	5.5482	4.9966	4.1659	3.5712	3.1250
45	36.0945	29.4902	24.5187	20.7200	17.7741	15.4558	13.6055	12.1084	10.8812	9.8628	8.2825	7.1232	6.6543	6.2421	5.5523	4.9986	4.1664	3.5714	3.1250
50	39.1961	31.4236	25.7298	21.4822	18.2559	15.7619	13.8007	12.2335	10.9617	9.9148	8.3045	7.1327	6.6605	6.2463	5.5541	4.9995	4.1666	3.5714	3.1250
55	42.1472	33.1748	26.7744	22.1086	18.6335	15.9905	13.9399	12.3186	11.0140	9.9471	8.3170	7.1376	6.6636	6.2482	5.5549	4.9998	4.1666	3.5714	3.1250

Table A-1 • Present Value of $1 Due at the End of n Periods:

Equation:

$$PVIF_{i,n} = \frac{1}{(1+i)^n}$$

Financial Calculator Keys:

| n | i | PV | PMT | FV |

TABLE VALUE
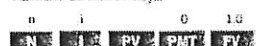
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	15%	16%	18%	20%	24%	28%	32%	36%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091	.8929	.8772	.8696	.8621	.8475	.8333	.8065	.7813	.7576	.7353
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264	.7972	.7695	.7561	.7432	.7182	.6944	.6504	.6104	.5739	.5407
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513	.7118	.6750	.6575	.6407	.6086	.5787	.5245	.4768	.4348	.3975
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830	.6355	.5921	.5718	.5523	.5158	.4823	.4230	.3725	.3294	.2923
5	.9515	.9057	.8626	.8219	.7835	.7473	.7130	.6806	.6499	.6209	.5674	.5194	.4972	.4761	.4371	.4019	.3411	.2910	.2495	.2149
6	.9420	.8880	.8375	.7903	.7462	.7050	.6663	.6302	.5963	.5645	.5066	.4556	.4323	.4104	.3704	.3349	.2751	.2274	.1890	.1580
7	.9327	.8706	.8131	.7599	.7107	.6651	.6227	.5835	.5470	.5132	.4523	.3996	.3759	.3538	.3139	.2791	.2218	.1776	.1432	.1162
8	.9235	.8535	.7894	.7307	.6768	.6274	.5820	.5403	.5019	.4665	.4039	.3506	.3269	.3050	.2660	.2326	.1789	.1388	.1085	.0854
9	.9143	.8368	.7664	.7026	.6446	.5919	.5439	.5002	.4604	.4241	.3606	.3075	.2843	.2630	.2255	.1938	.1443	.1084	.0822	.0628
10	.9053	.8203	.7441	.6756	.6139	.5584	.5083	.4632	.4224	.3855	.3220	.2697	.2472	.2267	.1911	.1615	.1164	.0847	.0623	.0462
11	.8963	.8043	.7224	.6496	.5847	.5268	.4751	.4289	.3875	.3505	.2875	.2366	.2149	.1954	.1619	.1346	.0938	.0662	.0472	.0340
12	.8874	.7885	.7014	.6246	.5568	.4970	.4440	.3971	.3555	.3186	.2567	.2076	.1869	.1685	.1372	.1122	.0757	.0517	.0357	.0250
13	.8787	.7730	.6810	.6006	.5303	.4688	.4150	.3677	.3262	.2897	.2292	.1821	.1625	.1452	.1163	.0935	.0610	.0404	.0271	.0184
14	.8700	.7579	.6611	.5775	.5051	.4423	.3878	.3405	.2992	.2633	.2046	.1597	.1413	.1252	.0985	.0779	.0492	.0316	.0205	.0135
15	.8613	.7430	.6419	.5553	.4810	.4173	.3624	.3152	.2745	.2394	.1827	.1401	.1229	.1079	.0835	.0649	.0397	.0247	.0155	.0099
16	.8528	.7284	.6232	.5339	.4581	.3936	.3387	.2919	.2519	.2176	.1631	.1229	.1069	.0930	.0708	.0541	.0320	.0193	.0118	.0073
17	.8444	.7142	.6050	.5134	.4363	.3714	.3166	.2703	.2311	.1978	.1456	.1078	.0929	.0802	.0600	.0451	.0258	.0150	.0089	.0054
18	.8360	.7002	.5874	.4936	.4155	.3503	.2959	.2502	.2120	.1799	.1300	.0946	.0808	.0691	.0508	.0376	.0208	.0118	.0068	.0039
19	.8277	.6864	.5703	.4746	.3957	.3305	.2765	.2317	.1945	.1635	.1161	.0829	.0703	.0596	.0431	.0313	.0168	.0092	.0051	.0029
20	.8195	.6730	.5537	.4564	.3769	.3118	.2584	.2145	.1784	.1486	.1037	.0728	.0611	.0514	.0365	.0261	.0135	.0072	.0039	.0021
21	.8114	.6598	.5375	.4388	.3589	.2942	.2415	.1987	.1637	.1351	.0926	.0638	.0531	.0443	.0309	.0217	.0109	.0056	.0029	.0016
22	.8034	.6468	.5219	.4220	.3418	.2775	.2257	.1839	.1502	.1228	.0826	.0560	.0462	.0382	.0262	.0181	.0088	.0044	.0022	.0012
23	.7954	.6342	.5067	.4057	.3256	.2618	.2109	.1703	.1378	.1117	.0738	.0491	.0402	.0329	.0222	.0151	.0071	.0034	.0017	.0009
24	.7876	.6217	.4919	.3901	.3101	.2470	.1971	.1577	.1264	.1015	.0659	.0431	.0349	.0284	.0188	.0126	.0057	.0027	.0013	.0006
25	.7798	.6095	.4776	.3751	.2953	.2330	.1842	.1460	.1160	.0923	.0588	.0378	.0304	.0245	.0160	.0105	.0046	.0021	.0010	.0005
26	.7720	.5976	.4637	.3607	.2812	.2198	.1722	.1352	.1064	.0839	.0525	.0331	.0264	.0211	.0135	.0087	.0037	.0016	.0007	.0003
27	.7644	.5859	.4502	.3468	.2678	.2074	.1609	.1252	.0976	.0763	.0469	.0291	.0230	.0182	.0115	.0073	.0030	.0013	.0006	.0002
28	.7568	.5744	.4371	.3335	.2551	.1956	.1504	.1159	.0895	.0693	.0419	.0255	.0200	.0157	.0097	.0061	.0024	.0010	.0004	.0002
29	.7493	.5631	.4243	.3207	.2429	.1846	.1406	.1073	.0822	.0630	.0374	.0224	.0174	.0135	.0082	.0051	.0020	.0008	.0003	.0001
30	.7419	.5521	.4120	.3083	.2314	.1741	.1314	.0994	.0754	.0573	.0334	.0196	.0151	.0116	.0070	.0042	.0016	.0006	.0002	.0001
35	.7059	.5000	.3554	.2534	.1813	.1301	.0937	.0676	.0490	.0356	.0189	.0102	.0075	.0055	.0030	.0017	.0005	.0002	.0001	*
40	.6717	.4529	.3066	.2083	.1420	.0972	.0668	.0460	.0318	.0221	.0107	.0053	.0037	.0026	.0013	.0007	.0002	.0001	*	*
45	.6391	.4102	.2644	.1712	.1113	.0727	.0476	.0313	.0207	.0137	.0061	.0027	.0019	.0013	.0006	.0003	.0001	*	*	*
50	.6080	.3715	.2281	.1407	.0872	.0543	.0339	.0213	.0134	.0085	.0035	.0014	.0009	.0006	.0003	.0001	*	*	*	*
55	.5785	.3365	.1968	.1157	.0683	.0406	.0242	.0145	.0087	.0053	.0020	.0007	.0005	.0003	.0001	*	*	*	*	*

*The factor is zero to four decimal places