

Final Exam

Intermediate Financial Accounting II

Fall 2011

ADM3340 Sections A & B

Name: _____

ID#: _____

Section: **Tuesday & Friday**

Tuesday evening

Instructions:

- Write your name and student ID number above.
- Turn off all cell phones.
- This examination comprises **5** questions over **20** numbered pages.
- Answer Question 1's multiple-choice questions on the SCANTRON sheet provided.
- Answer Questions 2-5 in this booklet. Booklet is **not** to be removed from the examination room. You may not separate the pages.
- Limit your answer to the space provided. Blank sheets for rough work and supporting calculations are given at the end of each question.
- This exam will be marked out of 100 marks for convenience and is 3 hours long. You should budget approximately 1.8 minutes per mark. The exam is worth 50% of the overall course mark.
- Please do **not** ask the invigilator or the professor any questions, as they will **not** be answered. State reasonable assumptions, if you feel they are necessary.
- Present value tables are provided on pages 19-20.
- Language (non-electronic) dictionaries are allowed if permitted by the professor.
- You **must** sign the Statement of Academic integrity on page 2 of this exam.

Question		Marks
1	20 x 1-mark multiple choice questions	/20
2: part 1	Financial instrument classification	/6
2: part 2	Convertible bond: issuance	/6
2: part 3	Convertible bond: conversion	/6
2: part 4	Non-financial derivative	/8
3	EPS	/15
4: part 1	Accounting changes and error analysis	/8
4: part 2		/6
4: part 3		/6
4: part 4		/6
5	Statement of Cash Flows	/13
TOTAL		/100

Statement of Academic Integrity

The Telfer School of Management does not condone academic fraud, an act by a student that may result in a false academic evaluation of that student or of another student. Without limiting the generality of this definition, academic fraud occurs when a student commits any of the following offences: plagiarism or cheating of any kind, use of books, notes, mathematical tables, dictionaries or other study aid unless an explicit written note to the contrary appears on the exam, to have in his/her possession cameras, radios (radios with head sets), tape recorders, pagers, cell phones, or any other communication device which has not been previously authorized in writing.

Statement to be signed by the student:

I have read the text on academic integrity and I pledge not to have committed or attempted to commit academic fraud in this examination.

Signed: _____

Note: an examination copy or booklet without that signed statement will not be graded and will receive an exam grade of zero.

QUESTION 1 (20 marks: 1 mark each)

Answer ALL parts to this question on the SCANTRON sheet provided. Each part is independent. The marker will not assess anything you write on this or the following page.

**This page has
been
intentionally
omitted.**

**This page has
been
intentionally
omitted.**

QUESTION 2 (26 marks)

Answer ALL parts to this question. Each part is independent.

PART 1: (6 marks)

A description of several different financial instruments follows :

- a. Subordinated debentures payable, bearing an interest rate of 9%, interest reset every three years with reference to market rates; principal due to be repaid only on the dissolution of the company, if ever, although may be repaid at the company's option on interest re-pricing dates.
- b. Subordinated 8% debentures payable, interest payable semi-annually, due in the year 2020. At maturity, the face value of the debentures may be converted, at the company's option, into common shares at a price of \$12.50 per share.
- c. Series B preferred shares, annual \$6 cumulative dividend, redeemable at the investor's option for \$110 per share, plus dividends in arrears. The company may, at its option, redeem the total obligation for the Series B preferred shares in common shares issued at market values (i.e. the number of common shares to be exchanged for the preferred shares will fluctuate in direct proportion to changes in the market value per common share).
- d. Series F preferred shares, annual \$6 cumulative dividend, convertible into two common shares for every \$100 preferred share at the investor's option, redeemable at \$110 per share at the company's option in 2018.

Required

Classify, from the issuer's point of view, each financial instrument as debt, equity, or hybrid. You must provide an explanation for the basis of your reasoning.

QUESTION 2 (26 marks) (continued)

PART 2: (6 marks)

BondTerrier Inc. issues a 10-year convertible (at the holder's option) bonds with a face value of \$3,000,000 and a coupon rate of 6.00% for \$2,700,000. The company is compliant with IFRS. Bond interest is paid semi-annually and the company amortizes any bond discount or premium using the effective interest rate method. When the bonds are issued, the prevailing market interest rate (yield or effective interest rate) for similar debt without a conversion option is 8.00%.

Assume the convertible option is a derivative that is not closely related to the bond liability and can be separately measured and that BondTerrier Inc. has decided not to treat the entire hybrid instrument as held for trading (at fair value through net income).

Required

The journal entry to record the issuance of these bonds.

QUESTION 2 (26 marks) (continued)

PART 3: (6 marks)

BondTerrier Inc. issues 5-year callable (at the issuer's option) and convertible (at the holder's option) bonds with a face value of \$5,000,000 and a coupon rate of 4.00% for \$5,155,000. The company is compliant with IFRS and uses the incremental approach to allocate issuance proceeds between the bond liability [\$4,573,490.30] and conversion feature [\$581,509.70]. Bond interest is paid semi-annually and the company amortizes any bond discount or premium using the effective interest rate method. When the bonds are issued, the prevailing market interest rate (yield or effective interest rate) for similar debt without a call or conversion option is 6.00%.

Assume the convertible option is a derivative that is not closely related to the bond liability and can be separately measured and that BondTerrier Inc. has decided not to treat the entire hybrid instrument as held for trading (at fair value through profit or loss). Each \$1,000 face value bond can be converted by the holder into 20 shares.

40% of the \$5,000,000 face value bonds are converted after interest is paid at the end of semi-annual period 6 when the fair market value per share is \$55.00.

Assume all transactions occur on interest payment dates.

Required

The journal entry to record the conversion at the end of semi-annual period 6.

QUESTION 2 (26 marks) (continued)

PART 4: (8 marks)

On 1/1/2011 Duqu Inc pays \$4,000 for an option, with a 'net settlement' clause, to buy land at \$100,000 any time on or before 1/1/2013. On 1/1/2011 the fair value of the land is \$95,000. The company's accounting year-end is 31 December.

On 31/12/2011 the land's fair value is \$90,000 and an options pricing model estimates the option's fair value to be \$3,000. On 31/12/2012 the land's fair value is \$108,000.

Required

- (a) Provide any entries necessary in Duqu Inc's books on 1/1/2011, 31/12/2011, and 31/12/2012, assuming Duqu reports the option using FV-NI.
- (b) Provide the entry in Duqu Inc's books on 1/1/2013 if Duqu exercises the option to acquire the land.
- (c) Provide the entry in Duqu Inc's books on 1/1/2013 if Duqu 'net settles' the option.
- (d) Provide the entry in Duqu Inc's books on 1/1/2013 if Duqu lets the option expire (without either exercising it to acquire the land or "net settling" it).

QUESTION 3 (15 marks)

Ice King Products Incorporated reported after-tax profit of \$6.5 million in 2011. Its capital structure included the following as of 31 December 2011, the *end* of the company's fiscal year:

Long-term debt:

Bonds payable, due 2016, 12%:	\$ 5,000,000
Bonds payable, due 2020, 9%, convertible into common shares at the rate of two shares per \$100:	\$10,000,000

Shareholders' equity:

Preferred shares, \$4.50, no-par, cumulative, convertible into common shares at the rate of two common shares for each preferred share, shares outstanding, 150,000:
Preferred shares, \$2.50, no-par, cumulative, convertible into common shares at the rate of one common share for each preferred share, shares outstanding, 400,000:
Common shares, shares outstanding, 1,500,000:

Options to purchase common shares (options have been outstanding all year):

Purchase price, \$20; expire 2015, 100,000 options:
Purchase price, \$52; expire 2019, 200,000 options:
Each option allows the purchase of one share.

Transactions during 2011:

On 1 July, 400,000 common shares were issued on the conversion of 200,000 of the \$4.50 preferred shares.
On 1 December, 100,000 common shares were issued for cash.

Other information:

Average common share price, stable during the year, \$40:
Tax rate, 25%:
Quarterly dividends on the preferred shares were declared on 31 March, 30 June, 30 September, and 31 December:

Required

Calculate basic and diluted earnings per share. Show all supporting calculations.

QUESTION 3 (15 marks) (continued)

QUESTION 3 (15 marks) (continued)

QUESTION 4 (26 marks)

The Dart Thrower Company (DTC), located in Ontario, manufactures components for automobiles. In preparing its year-end financial statements as at December 31, 2011, the accountant discovered the following four independent items which have not yet been corrected or changed. Assume the books have not yet been closed by DTC for 2011.

Required

For each of the following four items prepare the necessary journal entries on the books of DTC at December 31, 2011 to record the corrections and changes, as appropriate. You must show, in a clear and organized manner, your supporting calculations. Disregard income tax implications.

ITEM NO. 1 (8 MARKS)

On January 2, 2011, DTC had purchased as a strategic investment 22% of the outstanding common voting shares of Cork Corporation for \$90,000. This investment was correctly accounted for using the equity method. On the date of purchase, the fair value and book value of Cork's net identifiable assets were \$300,000 and \$290,000 respectively. The \$10,000 difference was attributed to undervalued depreciable assets based upon an estimated useful life of 5 years and no estimated residual value. Cork Corporation uses the straight-line method for its depreciable assets. Although the transaction was properly recorded by DTC on the purchase date, no adjustment has been made during the year for dividends received from Cork, impairment of goodwill, excess depreciation on undervalued depreciable assets, or income earned by Cork. Pertinent data follow:

Total dividends paid by Cork	\$16,000
Impairment of goodwill	50%
Income earned by Cork	50,000

QUESTION 4 (26 marks) (continued)

ITEM NO. 2 (6 MARKS)

On July 1, 2011, DTC purchased a truck for \$48,400, for which it paid \$9,000 in cash and signed a 3-year, \$39,400 non-interest bearing note for the balance. For notes of this equivalent risk and type, a rate of interest of 12% is considered appropriate. DTC always uses the effective interest method for amortizing any discounts or premiums. The truck and the note were erroneously recorded at \$48,400 and \$39,400 respectively. The truck is being depreciated using the double-declining balance method of depreciation based on a five-year life and a residual value of \$7,500.

QUESTION 4 (26 marks) (continued)

ITEM NO. 3 (6 MARKS)

DTC operates its offices from Monday to Friday. Employees are paid every Friday. The next payday was Friday, January 3, 2012. Assume all employees worked the five-day work week ending January 3, 2012 including New Years Day. DTC failed to record a portion of its 2011 payroll for the week ended January 3, 2012. Details of the weekly payroll follow:

Gross payroll	\$ 42,700
Deductions from employees for Employment Insurance (EI)	2,700
Deductions from employees for income taxes	4,260
Deductions from employees for Canada Pension Plan (CPP)	<u>1,800</u>
Net payroll	33,940

The employer's portion of the deductions for EI was also \$2,700. However, the employer's deduction for CPP was 1.4 times the amount withheld from employees. Amounts withheld will be remitted to the appropriate governmental programs within the first 31 days of 2012.

ITEM NO. 4 (6 MARKS)

DTC failed to accrue certain miscellaneous expenses at the end of each of the last three years, as follows:

December 31, 2009	\$ 11,200
December 31, 2010	4,000
December 31, 2011	2,500

QUESTION 5 (13 marks)

Comparative balance sheet accounts and supplemental information of Zippo Hosiery Inc., which complies with IFRS, follow:

Zippo Hosiery Inc.
Income Statement
Year Ended December 31, 2015

Sales	\$1,432,000
Cost of sales	<u>756,000</u>
Gross profit	676,000
Other expenses	256,600
Interest expense	75,000
Depreciation expense	<u>334,400</u>
Income before income taxes	10,000
Income tax expense	<u>4,000</u>
Net income before discontinued operations	6,000
Discontinued operations, net of taxes (\$100,000)	<u>283,100</u>
Net income	<u>\$ 289,100</u>

Zippo Hosiery Inc.
Comparative Balance Sheet
As at December 31, 2015 and 2014

	2015	2014	Change
Assets			
Cash and cash equivalents	\$ 172,000	\$ 210,000	\$(38,000)
Accounts receivable	150,000	170,000	(20,000)
Inventory	575,000	498,000	77,000
Investments (FV/Nl)	<u>140,000</u>	<u>190,000</u>	(50,000)
Current assets	1,037,000	1,068,000	
Property, plant, and equipment at cost	1,984,000	1,396,000	588,000
Accumulated depreciation	(650,400)	(487,000)	(163,400)
Patents	<u>690,000</u>	<u>552,000</u>	138,000
Total assets	<u>\$3,060,600</u>	<u>\$2,529,000</u>	
Liabilities			
Trade payables	<u>\$ 93,000</u>	<u>\$ 86,000</u>	\$7,000
Current liabilities	93,000	86,000	
Bank loan	-0-	100,000	(100,000)
Bonds payable	<u>659,500</u>	<u>674,000</u>	(14,500)
Total liabilities	752,500	860,000	
Shareholders' Equity			
Ordinary shares	1,150,000	700,000	450,000
Retained earnings	<u>1,158,100</u>	<u>969,000</u>	189,100
Total shareholders' equity	<u>2,308,100</u>	<u>1,669,000</u>	
Total liabilities and shareholders' equity	<u>\$3,060,600</u>	<u>\$2,529,000</u>	

Supplemental information:

- The decrease in bonds payable is due entirely to the amortization of the related premium.
- Zippo's policy is to report interest and dividends paid as a cash outflow from financing activities.
- \$10,000 of FV/Nl investments were purchased during the year; none were sold.
- Property, plant, and equipment costing \$570,000 was sold for \$422,000.
- 100,000 ordinary shares were issued to acquire \$450,000 of property, plant, and equipment.
- The \$212,000 cost of successfully suing a competitor for patent infringement was capitalized during the year.
- "Other Expenses" includes gains and losses on asset sales, holding losses, and patent amortization.
- Income from discontinued operations represents the operating profits of a plant that is in the process of being decommissioned. The recorded profit was received in cash.

Required

Prepare Zippo Hosiery Inc.'s cash flow statement, in good form, for the year ended December 31, 2015 using the indirect method, with all appropriate disclosures. A worksheet is provided for your convenience but will not be marked.

QUESTION 5 (13 marks) (continued)

QUESTION 5 (13 marks) (continued)

ZIPPO HOSIERY INC

	Balance 31/12/2015	Debits	Credits	Balance 31/12/2014
Cash and cash equivalents	172,000			210,000
Accounts receivable	150,000			170,000
Inventory	575,000			498,000
Investments (FV-NI)	140,000			190,000
Property, Plant, and Equipment at cost	1,984,000			1,396,000
Patents	690,000			552,000
Total	3,711,000			3,016,000
Accumulated depreciation - property, plant, and equipment	650,400			487,000
Trade payables	93,000			86,000
Bank loan	0			100,000
Bonds payable	659,500			674,000
Share capital	1,150,000			700,000
Retained earnings	1,158,100			969,000
Total	3,711,000			3,016,000
Cash Flows				
Operating activities:				
Investing activities:				
Financing activities:				

Rough Work Space (will not be marked/assessed)

Financial Tables

Table 2: PRESENT VALUE of \$1.00 that is received in the future.												
Period/Per	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.9900990	0.9803922	0.9708738	0.9615385	0.9523810	0.9433962	0.9345794	0.9259259	0.9174312	0.9090909	0.9009009	0.8928571
2	0.9802960	0.9611688	0.9425959	0.9245562	0.9070295	0.8899964	0.8734387	0.8573388	0.8416800	0.8264463	0.8116224	0.7971939
3	0.9705901	0.9423223	0.9151417	0.8889964	0.8638376	0.8396193	0.8162979	0.7938322	0.7721835	0.7513148	0.7311914	0.7117802
4	0.9609803	0.9238454	0.8884870	0.8548042	0.8227025	0.7920937	0.7628952	0.7350299	0.7084252	0.6830135	0.6587310	0.6355181
5	0.9514657	0.9057308	0.8626088	0.8219271	0.7835262	0.7472582	0.7129862	0.6805832	0.6499314	0.6209213	0.5934513	0.5674269
6	0.9420452	0.8879714	0.8374843	0.7903145	0.7462154	0.7049605	0.6663422	0.6301696	0.5962673	0.5644739	0.5346408	0.5066311
7	0.9327181	0.8705602	0.8130915	0.7599178	0.7106813	0.6650571	0.6227497	0.5834904	0.5470342	0.5131581	0.4816584	0.4523492
8	0.9234832	0.8534904	0.7894092	0.7306902	0.6768394	0.6274124	0.5820091	0.5402689	0.5018663	0.4665074	0.4339265	0.4038832
9	0.9143398	0.8367553	0.7664167	0.7025867	0.6446089	0.5918985	0.5439337	0.5002490	0.4604278	0.4240976	0.3909248	0.3606100
10	0.9052870	0.8203483	0.7440939	0.6755642	0.6139133	0.5583948	0.5083493	0.4631935	0.4224108	0.3855433	0.3521845	0.3219732
11	0.8963237	0.8042630	0.7224213	0.6495809	0.5846793	0.5267875	0.4750928	0.4288829	0.3875329	0.3504939	0.3172833	0.2874761
12	0.8874492	0.7884932	0.7013799	0.6245970	0.5568374	0.4969694	0.4440120	0.3971138	0.3555347	0.3186308	0.2858408	0.2566751
13	0.8786626	0.7730325	0.6809513	0.6005741	0.5303214	0.4688390	0.4149644	0.3676979	0.3261786	0.2896644	0.2575143	0.2291742
14	0.8699630	0.7578750	0.6611178	0.5774751	0.5050680	0.4423010	0.3878172	0.3404610	0.2992465	0.2633313	0.2319948	0.2046198
15	0.8613495	0.7430147	0.6418619	0.5552645	0.4810171	0.4172651	0.3624460	0.3152417	0.2745380	0.2393920	0.2090043	0.1826963
16	0.8528213	0.7284458	0.6231669	0.5339082	0.4581115	0.3936463	0.3387346	0.2918905	0.2518698	0.2176291	0.1882922	0.1631217
17	0.8443775	0.7141626	0.6050164	0.5133732	0.4362967	0.3713644	0.3165744	0.2702690	0.2310732	0.1978447	0.1696326	0.1456443
18	0.8360173	0.7001594	0.5873946	0.4936281	0.4155207	0.3503438	0.2958639	0.2502490	0.2119937	0.1798588	0.1528222	0.1300396
19	0.8277399	0.6864308	0.5702860	0.4746424	0.3957340	0.3305130	0.2765083	0.2317121	0.1944897	0.1635080	0.1376776	0.1161068
20	0.8195445	0.6729713	0.5536758	0.4563869	0.3768895	0.3118047	0.2584190	0.2145482	0.1784309	0.1486436	0.1240339	0.1036668
21	0.8114302	0.6597758	0.5375493	0.4388336	0.3589424	0.2941554	0.2415131	0.1986557	0.1636981	0.1351306	0.1117423	0.0925596
22	0.8033962	0.6468390	0.5218925	0.4219554	0.3418499	0.2775051	0.2257132	0.1839405	0.1501817	0.1228460	0.1006687	0.0826425
23	0.7954418	0.6341559	0.5066917	0.4057263	0.3255713	0.2617973	0.2109469	0.1703153	0.1377814	0.1116782	0.0906925	0.0737880
24	0.7875661	0.6217215	0.4919337	0.3901215	0.3100679	0.2469785	0.1971466	0.1576993	0.1264049	0.1015256	0.0817050	0.0658821
25	0.7797684	0.6095309	0.4776056	0.3751168	0.2953028	0.2329986	0.1842492	0.1460179	0.1159678	0.0922960	0.0736081	0.0588233
26	0.7720480	0.5975793	0.4636947	0.3606892	0.2812407	0.2198100	0.1721955	0.1352018	0.1063925	0.0839055	0.0663136	0.0525208
27	0.7644039	0.5858620	0.4501891	0.3468166	0.2678483	0.2073680	0.1609304	0.1251868	0.0976078	0.0762777	0.0597420	0.0468936
28	0.7568356	0.5743746	0.4370768	0.3334775	0.2550936	0.1956301	0.1504022	0.1159137	0.0895484	0.0693433	0.0538216	0.0418693
29	0.7493421	0.5631123	0.4243464	0.3206514	0.2429463	0.1845567	0.1405628	0.1073275	0.0821545	0.0630394	0.0484879	0.0373833
30	0.7419229	0.5520709	0.4119868	0.3083187	0.2313774	0.1741101	0.1313671	0.0993773	0.0753711	0.0573086	0.0436828	0.0333779
31	0.7345771	0.5412460	0.3999871	0.2964603	0.2203595	0.1642548	0.1227730	0.0920160	0.0691478	0.0520987	0.0393539	0.0298017
32	0.7273041	0.5306333	0.3883370	0.2850579	0.2098662	0.1549574	0.1147411	0.0852000	0.0634384	0.0473624	0.0354540	0.0266087
33	0.7201031	0.5202287	0.3770262	0.2740942	0.1998725	0.1461862	0.1072347	0.0788889	0.0582003	0.0430568	0.0319405	0.0237577
34	0.7129733	0.5100282	0.3660449	0.2635521	0.1903548	0.1379115	0.1002193	0.0730453	0.0533948	0.0391425	0.0287752	0.0212123
35	0.7059142	0.5000276	0.3553834	0.2534155	0.1812903	0.1301052	0.0936629	0.0676345	0.0489861	0.0355841	0.0259236	0.0189395
36	0.6989249	0.4902232	0.3450324	0.2436687	0.1726574	0.1227408	0.0875355	0.0626246	0.0449413	0.0323492	0.0233546	0.0169103
37	0.6920049	0.4806109	0.3349829	0.2342968	0.1644356	0.1157932	0.0818088	0.0579857	0.0412306	0.0294083	0.0210402	0.0150985
38	0.6851534	0.4711872	0.3252262	0.2252854	0.1566054	0.1092389	0.0764569	0.0536905	0.0378262	0.0267349	0.0189551	0.0134808
39	0.6783697	0.4619482	0.3157535	0.2166206	0.1491480	0.1030555	0.0714550	0.0497134	0.0347030	0.0243044	0.0170767	0.0120364
40	0.6716531	0.4528904	0.3065568	0.2082890	0.1420457	0.0972222	0.0667804	0.0460309	0.0318376	0.0220949	0.0153844	0.0107468

Table	4: PRESENT VALUE of Annuity of \$1.00 in arrears.											
Period/Per	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.990099	0.980392	0.970874	0.961538	0.952381	0.943396	0.934579	0.925926	0.917431	0.909091	0.900901	0.892857
2	1.970395	1.941561	1.913470	1.886095	1.859410	1.833393	1.808018	1.783265	1.759111	1.735537	1.712523	1.690051
3	2.940985	2.883883	2.828611	2.775091	2.723248	2.673012	2.624316	2.577097	2.531295	2.486852	2.443715	2.401831
4	3.901966	3.807729	3.717098	3.629895	3.545951	3.465106	3.387211	3.312127	3.239720	3.169865	3.102446	3.037349
5	4.853431	4.713460	4.579707	4.451822	4.329477	4.212364	4.100197	3.992710	3.889651	3.790787	3.695897	3.604776
6	5.795476	5.601431	5.417191	5.242137	5.075692	4.917324	4.766540	4.622880	4.485919	4.355261	4.230538	4.111407
7	6.728195	6.471991	6.230283	6.002055	5.786373	5.582381	5.389289	5.206370	5.032953	4.868419	4.712196	4.563757
8	7.651678	7.325481	7.019692	6.732745	6.463213	6.209794	5.971299	5.746639	5.534819	5.334926	5.146123	4.967640
9	8.566018	8.162237	7.786109	7.435332	7.107822	6.801692	6.515232	6.246888	5.995247	5.759024	5.537048	5.328250
10	9.471305	8.982585	8.530203	8.110896	7.721735	7.360087	7.023582	6.710081	6.417658	6.144567	5.889232	5.650223
11	10.367628	9.786848	9.252624	8.760477	8.306414	7.886875	7.498674	7.138964	6.805191	6.495061	6.206515	5.937699
12	11.255077	10.575341	9.954004	9.385074	8.863252	8.383844	7.942686	7.536078	7.160725	6.813692	6.492356	6.194374
13	12.133740	11.348374	10.634955	9.985648	9.393573	8.852683	8.357651	7.903776	7.486904	7.103356	6.749870	6.423548
14	13.003703	12.106249	11.296073	10.563123	9.898641	9.294984	8.745468	8.244237	7.786150	7.366687	6.981865	6.628168
15	13.865053	12.849264	11.937935	11.118387	10.379658	9.712249	9.107914	8.559479	8.060688	7.606080	7.190870	6.810864
16	14.717874	13.577709	12.561102	11.652296	10.837770	10.105895	9.446649	8.851369	8.312558	7.823709	7.379162	6.973986
17	15.562251	14.291872	13.166118	12.165669	11.274066	10.477260	9.763223	9.121638	8.543631	8.021553	7.548794	7.119630
18	16.398269	14.992031	13.753513	12.659297	11.689587	10.827603	10.059087	9.371887	8.755625	8.201412	7.701617	7.249670
19	17.226008	15.678462	14.323799	13.133939	12.085321	11.158116	10.335595	9.603599	8.950115	8.364920	7.839294	7.365777
20	18.045553	16.351433	14.877475	13.590326	12.462210	11.469921	10.594014	9.818147	9.128546	8.513564	7.963328	7.469444
21	18.856983	17.011209	15.415024	14.029160	12.821153	11.764077	10.835527	10.016803	9.292244	8.648694	8.075070	7.562003
22	19.660379	17.658048	15.936917	14.451115	13.163003	12.041582	11.061240	10.200744	9.442425	8.771540	8.175739	7.644646
23	20.455821	18.292204	16.443608	14.856842	13.488574	12.303379	11.272187	10.371059	9.580207	8.883218	8.266432	7.718434
24	21.243387	18.913926	16.935542	15.246963	13.798642	12.550358	11.469334	10.528758	9.706612	8.984744	8.348137	7.784316
25	22.023156	19.523456	17.413148	15.622080	14.093945	12.783356	11.653583	10.674776	9.822580	9.077040	8.421745	7.843139
26	22.795204	20.121036	17.876842	15.982769	14.375185	13.003166	11.825779	10.809978	9.928972	9.160945	8.488058	7.895660
27	23.559608	20.706898	18.327031	16.329586	14.643034	13.210534	11.986709	10.935165	10.026580	9.237223	8.547800	7.942554
28	24.316443	21.281272	18.764108	16.663063	14.898127	13.406164	12.137111	11.051078	10.116128	9.306567	8.601622	7.984423
29	25.065785	21.844385	19.188455	16.983715	15.141074	13.590721	12.277674	11.158406	10.198283	9.369606	8.650110	8.021806
30	25.807708	22.396456	19.600441	17.292033	15.372451	13.764831	12.409041	11.257783	10.273654	9.426914	8.693793	8.055184
31	26.542285	22.937702	20.000428	17.588494	15.592811	13.929086	12.531814	11.349799	10.342802	9.479013	8.733146	8.084986
32	27.269589	23.468335	20.388766	17.873551	15.802677	14.084043	12.646555	11.434999	10.406240	9.526376	8.768600	8.111594
33	27.989693	23.988564	20.765792	18.147646	16.002549	14.230230	12.753790	11.513888	10.464441	9.569432	8.800541	8.135352
34	28.702666	24.498592	21.131837	18.411198	16.192904	14.368141	12.854009	11.586934	10.517835	9.608575	8.829316	8.156564
35	29.408580	24.998619	21.487220	18.664613	16.374194	14.498246	12.947672	11.654568	10.566821	9.644159	8.855240	8.175504
36	30.107505	25.488842	21.832252	18.908282	16.546852	14.620987	13.035208	11.717193	10.611763	9.676508	8.878594	8.192414
37	30.799510	25.969453	22.167235	19.142579	16.711287	14.736780	13.117017	11.775179	10.652993	9.705917	8.899635	8.207513
38	31.484663	26.440641	22.492462	19.367864	16.867893	14.846019	13.193473	11.828869	10.690820	9.732651	8.918590	8.220993
39	32.163033	26.902589	22.808215	19.584485	17.017041	14.949075	13.264928	11.878582	10.725523	9.756956	8.935666	8.233030
40	32.834686	27.355479	23.114772	19.792774	17.159086	15.046297	13.331709	11.924613	10.757360	9.779051	8.951051	8.243777