#### AFM 291

#### **Intermediate Financial Accounting I**

#### **University of Waterloo**

#### Midterm Exam

## Friday, October 28, 2011 4:30pm-6:00pm K. Brown (Sections 001-004) and M. Wolfe (Sections 005-006)

Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

WatIAM/Quest ID: \_\_\_\_\_

**Section (please circle):** 8:30-9:50 (K. Brown) 4:00-5:20 (M. Wolfe)

10:00-11:20 (K. Brown) 5:30-6:50 (M. Wolfe)

11:30-12:50 (K. Brown)

2:30-3:50 (K. Brown)

#### Instructions:

- 1. This is a closed note, closed book examination. You may use pen/pencil and a calculator during the examination.
- The examination includes 24 pages (including the cover page) please ensure that all the pages have been included. If any pages are detached, they <u>must</u> be re-attached to the examination before the exam is handed in, to receive marks for work shown on these pages.
- 3. Show all your work and calculations. We cannot give partial credit if we cannot see the work you have done. No partial credit is given for multiple choice questions. All questions must be answered in the space provided on the examination paper. Answers written outside of the provided space will not be graded.
- 4. Unless otherwise stated, assume that the fiscal year end is December 31.
- 5. For parts C thru G of the examination, round your final answers to the nearest dollar.
- 6. When you have completed the exam, please leave your answers on your desk with the title page facing upwards.
- 7. You have 1.5 hours to complete the exam please allocate your time wisely.
- 8. Good Luck!

# Grading

#### **Examination Breakdown:**

Dort		Your	Total
Fall		Points	Points
Α	Multiple Choice		/10
В	Multiple Choice		/9
С	Factoring Accounts Receivable		/16
D	Inventory Costs		/19
E	Inventory Errors		/12
F	Investments 1		/15
G	Investments 2		/19
Total			/100

#### Part A: Multiple Choice (1 Point Each – No Partial Credit will be Awarded)

- 1. The adoption of International Financial Reporting Standards is an example of
  - a. The impact of technology on user's needs.
  - b. The impact of globalization on capital markets
  - c. Ethical behaviour.
  - d. None of the above
- 2. Decision makers vary widely in the types of decisions they make, the methods of decision making they employ, the information they already possess or can obtain from other sources, and their ability to process information. Consequently, for information to be useful there must be a linkage between these users and the decisions they make. This link is
  - a. relevance.
  - b. reliability.
  - c. understandability.
  - d. materiality.
- 3. The overriding criterion by which accounting information can be judged is that of
  - a. usefulness for decision making.
  - b. freedom from bias.
  - c. timeliness.
  - d. comparability.
- 4. During a major renovation project of its head office, a worker was seriously injured. While the company believes that it was not at fault, it does include the incident in the notes to its financial statements. This is consistent with which of the following principles:
  - a. Economic entity
  - b. Control
  - c. Full disclosure
  - d. Periodicity
- 5. MAX Auto Repair has implemented a policy that requires all expenditures below \$10 to be expensed. This is an application of
  - a. The full disclosure principle
  - b. The matching principle
  - c. The materiality constraint
  - d. Representational faithfulness

- 6. If, during an accounting period, an expense item has been incurred and consumed but not yet paid for or recorded, then the end-of-period adjusting entry would involve
  - a. a liability account and an asset account.
  - b. an asset and an expense account.
  - c. a liability account and an expense account.
  - d. a receivable account and a revenue account.
- 7. Which of the following is not considered cash for financial reporting purposes?
  - a. Petty cash funds and change funds
  - b. Money orders, certified cheques, and personal cheques
  - c. Coin, currency, and available funds
  - d. Postdated cheques and I.O.U.'s
- 8. If a company employs the gross method of recording accounts receivable from customers, then sales discounts taken should be
  - a. reported as a deduction from sales in the income statement.
  - b. reported as a loss in the income statement.
  - c. reported as a deduction from accounts receivable in determining the net realizable value of accounts receivable.
  - d. reported as sales discounts forfeited in the cost of goods sold section of the income statement.
- 9. During 2010 Ebert Corporation transferred inventory to Holger Corporation and agreed to repurchase the merchandise early in 2011. Holger then used the inventory as collateral to borrow from Norwalk Bank, remitting the proceeds to Ebert. In 2011 when Ebert repurchased the inventory, Holger used the proceeds to repay its bank loan. On whose books should the cost of the inventory appear at the December 31, 2010 balance sheet date?
  - a. Ebert Corporation
  - b. Holger Corporation
  - c. Norwalk Bank
  - d. HolgerCorporation, with Ebert making appropriate note disclosure of the transaction

10. The concept of recycling within the context of investments

- a. refers to the transfer of previously unrealized gains or losses to net income.
- b. refers to the switch of income between different investments categories.
- c. Should*not* be used in the fair value through other comprehensive income model.
- **d.** none of these.

# Part B: Multiple Choice (3 Points Each – No Partial Credit Will be Awarded) Please circle your choice (a, b, c, or d).

11. The following information is available for Sorensen Company:

Allowance for doubtful accounts at December 31, 2010	\$	8,000
Credit sales during 2011	400	0,000
Accounts receivable deemed worthless and written off during 2011	9,0	00

As a result of a review and aging of accounts receivable in early January 2012, however, it has been determined that an allowance for doubtful accounts of \$7,500 is needed at December 31, 2011. What amount should Sorensen record as bad debt expense for the year ended December 31, 2011?

- a. \$6,500
- b. \$7,500
- c. \$8,500
- d. \$15,500

#### 8000-9000+plug=7500

- 12. A company receives a four-year, \$50,000 zero-interest bearing note with an implicit rate of interest of 11%. Assuming the note was issued on January 1, and the effective interest method is used, the interest income to be recognized at December 31, Year 1 will be
  - a. \$5,500.00
  - b. \$3,623.02
  - c. \$3,231.08
  - d. \$4,511.23

#### 32936.50\*0.11

- 13. On January 1, 2010, the merchandise inventory of Morton, Ltd. was \$1.2 million. During 2010 Morton purchased \$2,300,000 of merchandise and recorded sales of \$2.7 million. The gross profit rate on these sales was 35%. What is the merchandise inventory of Morton at December 31, 2010?
  - a. \$1,125,000.
  - b. \$1,745,000. 1.2+2.3-(0.65\*2.7)
  - c. \$1,765,000.
  - d. \$945,000.

## Part C: Factoring Accounts Receivable (16 Points)

On April 1, Cobra, Ltd. factored \$600,000 of accounts receivable with Milton Finance on a without recourse basis. Under the arrangement, Cobra was to handle disputes concerning service, and Milton Finance was to make the collections, handle the sales discounts, and absorb the credit losses. Milton Finance assessed a finance charge of six percent of the total accounts receivable factored and retained an amount equal to two percent of the total receivables to cover sales discounts.

Date	Account Name	Debit	Credit
April 1	Cash	552,000	
	Due from Factor/Cobra	12,000 (2%)	
	Loss on sale of A/R	36,000 (6%)	
	Or		
	Finance expense		
	A/R		600,000

(a) Prepare the journal entry required on Cobra's books on April 1. (4pts)

#### <sup>1</sup>/<sub>2</sub> for each correct account name and Dr/Cr amount

(b) Prepare the journal entry required on Milton Finance's books on April 1. (4 pts)

Date	Account Name	Debit	Credit
April 1	A/R	600,000	
	Due to Cobra		12,000 (2%)
	Financing Revenue		36,000 (6%)
	Cash		552,000

<sup>1</sup>/<sub>2</sub> for each correct account name and Dr/Cr amount

(c) Assume Cobra factors the \$600,000 of accounts receivable with Milton Finance on a *with* recourse basis instead. The recourse provision has a fair value of \$10,000. Prepare the journal entry required on Cobra's books on May 1. (**4 pts**)

Date	Account Name	Debit	Credit
April 1	Cash <b>(1/4)</b>	552,000 ( <b>1/4)</b>	
	Due from Factor(1/2)	12,000 (2%) ( <b>1/2)</b>	
	Loss on sale A/R (1/2)	46,000 (6%	
	Or	+10,000)(1/2)	
	Finance expense		
	A/R <b>(1/4)</b>		600,000 <b>(1/4)</b>
	Recourse		10,000 (1/2)
	Liability <b>(1/2)</b>		

(d) Based on part C) above prepare the journal entry required on Milton's books on May 1. **(4 pts)** 

Date	Account Name	Debit	Credit
April 1	A/R	600,000	
	Due to Cobra		12,000 (2%)
	Financing Revenue		36,000 (6%)
	Cash		552,000

<sup>1</sup>/<sub>2</sub> for each correct account name and Dr/Cr amount

### Part D: Inventory Cost (19 Points)

i) Hagey Inc. determined the following information regarding its ending inventory as follows:

	Cost	Estimated	Estimated	NRV	Lower of
		Selling	Costs to		Cost and
		Price	Complete		NRV
			and Sell		
Dec. 31,	\$360,000	\$361,250	\$1,250	360,000	360,000
2010					
Dec. 31,	490,000	460,750	1,550	459200	459,200
2011					
Dec. 31,	475,000	446,450	1,450	445000	445,000
2012					

Assume that a perpetual inventory system was used, with inventory reduced to the lower of cost and net realizable value using the indirect (or allowance) method.

a) Prepare the journal entries that are required on December 31, 2011 (4pts)

Date	Account Name	Debit	Credit
Dec 31, 2011 Loss due to decrease in		30,800	
	INV		
	Allowance to reduce		30,800
	INV to NRV		
	459200-490000= - 30800		

### 1 pt for each correct account name and Dr/Cr amount

**b)** What is the effect on net income for 2011? (1pt)

Gain Loss (Circle one)

c) Prepare the journal entries that are required on December 31, 2012 (6 PTS)

Date	Account Name	Debit	Credit
Dec 31, 2012 Allowance to		800	
	reduce INV to NRV		
	Recover <b>y of loss</b>		800
	(or gain)		
	(445000-		
	475,000)+30,800		

# 1 pt for each correct account name and 2 pts for Dr/Cr amount

d) What is the effect on net income for 2012? (1 pt)

one)

OR

Date	Account Name	Debit	Credit
Dec 31, 2012	Loss due to	30000	
	inventory decline		
	Allowance to		30000
	reduce INV to NRV		
	(445000-475,000)		

**CIRCLE LOSS** 

**ii)** Lapp Corp. purchased merchandise on March10th,2010 on credit for \$150,000; terms 2/10, n/30. All of the monies owed, except for \$30,000 was paid on March 19<sup>th</sup>, 2010. The remainder was paid within the 30-day term. At the end of the annual accounting period, December 31, 2010, 90% of the merchandise had been sold and 10% remained in inventory. The company uses a periodic system.

(a) Assuming that the net method is used for recording purchases, prepare the entries for the purchase and two subsequent payments. **(2pts)** 

### Purchase

Date	Account Name	Debit	Credit
March 10, 2010	Purchases	147,000	
	A/P		147,000
	0.98*150000		

#### 1/2 pt for each correct account name and Dr/Cr amount

## Payment 1 (2pts)

Date	Account Name	Debit	Credit
March	A/P	117,600/114,660	
19,2010			
	Cash		117,600/114,660
	(150,000-30,000)*.98		
	Or (147,000-		
	30000)*.98		

#### 1/2 pt for each correct account name and Dr/Cr amount

#### Payment 2 (3pts)

Date	Account Name	Debit	Credit
Within 30 days	A/P	29,400	
	Purchase	600	
	Discounts Lost		
	Cash		30,000

1/2 pt for each correct account name and Dr/Cr amount

# Part E: Inventory Errors (12 Points)

Inventory

i merchandise sales over the phor three years (an amounts in minoris).				
	2011	2010	2009	
Income				
Statement:				
Sales	\$265	\$238	\$242	
Cost of Goods	132	127	121	
Sold				
Operating	60	60	60	
Expenses				
Balance Sheet:				

The records for Maple Leaf Sports and Entertainment showed the following data for merchandise sales over the prior three years (all amounts in millions):

After the company's December 31, 2010 fiscal year end, a University of Waterloo Co-op student discovered two errors, which have not been corrected.

\$95

\$67

1. Ending inventory in 2009 was overstated by \$7 million.

\$78

 The cost of goods purchased and recorded as Inventory in 2010 included an invoice for merchandise dated January 4<sup>th</sup>, 2011. The amount of the invoice was \$12 million. The ending inventory balances on December 31, 2010 and 2011 were correct.

For each year determine the corrected cost of goods sold, gross profit, and ending inventory. Provide your answers in the table below.

	2011	2010	2009
Cost of Goods Sold	144 <b>(2pts)</b>	108 <b>(2pts)</b>	128 <b>(2pts)</b>
Gross Profit	121 <b>(1pts)</b>	130 <b>(1pts)</b>	114 <b>(1pts)</b>
Ending Inventory	78 <b>(1pts)</b>	95 <b>(1pts)</b>	60 <b>(1pts)</b>

Use this space to show work if needed

# Part F: Investments (15 points)

On January 1, 2010 Berj Corp purchased bonds with a face value of \$600,000 and a stated rate of 5%. The market rate for a bond with similar risk was 6% at the time of purchase. Berj Corp receives interest payments yearly on December 31. The bonds mature at the end of 3 years on December 31, 2012

Date	Account Name	Debit	Credit
Jan 1, 2010	Investment in Bond	583,962.30	
	(1/2pt)	(4pts)	
	Cash <b>(1/2pt)</b>		583,962.30
			(4pts)
	OR		
	Investment in Bond	600,000 <b>(2pts)</b>	
	(1/4pt)		
	Discount on bond		16,037.70
	(1/4pt)		(2pts)
	Cash <b>(1/2pt)</b>		583,962.30
			(4pts)

1. Record the journal entry for the purchase of the bonds on January 1, 2010

600,000x0.05=30,000; 30,000\*2.67301=80,190.30

600,000\*0.83962=503,772

2. Complete the bond amortization schedule below.

	Cash	Interest	Amortization	Carrying Amount
	Received	Revenue		
January 1, 2010				583,962.30
December 31, 2010	30,000	35037.74	5037.74	589,000.04
December 31, 2011	30,000	35340.00	5340.00	594,340.04
December 31, 2012	30,000	35660.40 or	5660.40	600,000 or
		35659.96		600,000.44

(1/2 pt for each correct entry in schedule)

Use this space to show work if needed

### Part G: Investments (2) (19 Points)

Pepsi Cois a public company and made 3 new investments in the current fiscal year, 2011.

<u>Security</u>	Purchase Date	<u>Purchase</u>	Price/share Co	ommission Pd
Nike Inc.	Feb. 15, 2011	10,000 shares	\$85.55	1.5%
Suncor	Oct. 28, 2011	20,000 shares	\$32.72	1.5%
Good for YouSnacks				

(GYS) Nov. 1, 2011 100,000 shares \$10.50 The purchase price per share does not include the commission paid. The purchase of shares in GYS resulted in 25% ownership in GYS. It is determined that Pepsi Co has significant influence in GYS's operating decisions

1. Pepsi Co plans on holding the Nike investment on a temporary basis, uses the FV-NI method to account for the investment, and does not capitalize commissions paid. Record the initial purchase. **(2pts)** 

Date	Account Name	Debit	Credit
Feb 15 <i>,</i>	Temp. Inv in Nike	855,500	
2011		(10,000*85.55)	
	Commission Expense	12,832.50	
		(0.015*10,000*85.55)	
	Cash		868,332.50

2. On December 31, 2011 Pepsi Co received a \$0.31 per share dividend from Nike.Pepsi Co does not report dividend and interest income separately.
(2pts)

Date	Account Name	Debit	Credit
Dec 31,2011	Cash	3100	
			2100
	Inv. Income		3100
	(10,000*0.31)		

3. On December 31, 2011 the price per share on the NYSE for Nike was \$92.97(2pts)

Date	Account Name	Debit	Credit
Dec 31, 2011	Temp. Inv. In Nike	74,200	
	Inv. Income/loss		74,200
	(10,000*(92.97- 85.55)		

4. Pepsi Co plans on holding the Suncor investment over the long term and uses the FV-OCI without recycling method to account for the investment. Record the initial purchase. In addition, Pepsi Co capitalizes commission expense when using the FV-OCI method. (2pts)

Date	Account Name	Debit	Credit
Oct 28, 2011	Inv. In Suncor	664,216	
	Cash		664,216
	=20000*32.72*1.015		

5. On December 31, 2011 the price per share on the NYSE for Suncor was \$28.76(2pts)

Date	Account Name	Debit	Credit
Dec 31, 2011	Holding gain/loss on Suncor (OCI)	89,016	
	Inv. In Suncor		89,016
	=664,216-20000*28.76		

 On February 1, 2012 Pepsi Co sold 10,000 of its shares in Suncor for \$300,000. (5pts)

Date	Account Name	Debit	Credit
Feb 1, 2012	Inv. In Suncor	12,400*	
	Holding gain/loss (OCI)		12,400*
	300000-(28.76*10000)		
	Cash	300,000	
	Inv. In Suncor		300,000
	Retained Earnings	32,108 =(89,016/2- 12400)	
	Holding gain/loss on Suncor (OCI)		32,108

\*If you wrote the entire 20,000 shares up to fair value the numbers would be 24,800 and you would get the full marks.

7. Pepsi Co plans on holding the investment in Good for You Snacks(GYS) over the long term and it is also determined that they have significant influence on decisions being made. Record the initial purchase. **(2pts)** 

Date	Account Name	Debit	Credit
Nov 1, 2011	Inv. In GYS	1,050,000	
	Cash		1,050,000
	(100,000*10.50)		

8. On December 31, 2011 the price per share on the NYSE for GYS was \$10.76. GYS reported net income of \$2,750,000, and paid dividends of \$0.05/share. (2pts)

Date	Account Name	Debit	Credit
Dec 31, 2011	Inv. In GYS	687,500	
		(0.25*2.75M)	
	Inv. Income		687,500
	Cash	5,000 (100,000*0.05)	
	Inv. In GYS		5,000

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#### Present Value of \$1 (Present Value of a Single Sum)

 $\mathbf{PV} = \mathbf{FV} / (1 + \mathbf{r})^n$ 

(n)													
Periods	2%	2.5%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	15%
0.25	0.99506	0.99385	0.99264	0.99024	0.98788	0.98554	0.98323	0.98094	0.97869	0.97645	0.97425	0.97207	0.96566
0.5	0.99015	0.98773	0.98533	0.98058	0.97590	0.97129	0.96674	0.96225	0.95783	0.95346	0.94916	0.94491	0.93250
0.75	0.98526	0.98165	0.97807	0.97101	0.96407	0.95724	0.95052	0.94391	0.93741	0.93101	0.92471	0.91852	0.90049
1	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	0.86957
2	0.96117	0.95181	0.94260	0.92456	0.90703	0.89000	0.87344	0.85734	0.84168	0.82645	0.81162	0.79719	0.75614
3	0.94232	0.92860	0.91514	0.88900	0.86384	0.83962	0.81630	0.79383	0.77218	0.75131	0.73119	0.71178	0.65752
4	0.92385	0.90595	0.88849	0.85480	0.82270	0.79209	0.76290	0.73503	0.70843	0.68301	0.65873	0.63552	0.57175
5	0.90573	0.88385	0.86261	0.82193	0.78353	0.74726	0.71299	0.68058	0.64993	0.62092	0.59345	0.56743	0.49718
6	0.88797	0.86230	0.83748	0.79031	0.74622	0.70496	0.66634	0.63017	0.59627	0.56447	0.53464	0.50663	0.43233
7	0.87056	0.84127	0.81309	0.75992	0.71068	0.66506	0.62275	0.58349	0.54703	0.51316	0.48166	0.45235	0.37594
8	0.85349	0.82075	0.78941	0.73069	0.67684	0.62741	0.58201	0.54027	0.50187	0.46651	0.43393	0.40388	0.32690
9	0.83676	0.80073	0.76642	0.70259	0.64461	0.59190	0.54393	0.50025	0.46043	0.42410	0.39092	0.36061	0.28426
10	0.82035	0.78120	0.74409	0.67556	0.61391	0.55839	0.50835	0.46319	0.42241	0.38554	0.35218	0.32197	0.24718
11	0.80426	0.76214	0.72242	0.64958	0.58468	0.52679	0.47509	0.42888	0.38753	0.35049	0.31728	0.28748	0.21494
12	0.78849	0.74356	0.70138	0.62460	0.55684	0.49697	0.44401	0.39711	0.35553	0.31863	0.28584	0.25668	0.18691
13	0.77303	0.72542	0.68095	0.60057	0.53032	0.46884	0.41496	0.36770	0.32618	0.28966	0.25751	0.22917	0.16253
14	0.75788	0.70773	0.66112	0.57748	0.50507	0.44230	0.38782	0.34046	0.29925	0.26333	0.23199	0.20462	0.14133
15	0.74301	0.69047	0.64186	0.55526	0.48102	0.41727	0.36245	0.31524	0.27454	0.23939	0.20900	0.18270	0.12289
16	0.72845	0.67362	0.62317	0.53391	0.45811	0.39365	0.33873	0.29189	0.25187	0.21763	0.18829	0.16312	0.10686
17	0.71416	0.65720	0.60502	0.51337	0.43630	0.37136	0.31657	0.27027	0.23107	0.19784	0.16963	0.14564	0.09293
18	0.70016	0.64117	0.58739	0.49363	0.41552	0.35034	0.29586	0.25025	0.21199	0.17986	0.15282	0.13004	0.08081
19	0.68643	0.62553	0.57029	0.47464	0.39573	0.33051	0.27651	0.23171	0.19449	0.16351	0.13768	0.11611	0.07027
20	0.67297	0.61027	0.55368	0.45639	0.37689	0.31180	0.25842	0.21455	0.17843	0.14864	0.12403	0.10367	0.06110

Present Value of an	Ordinary A	Annuity of 1
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 $PV_A = [1 - [1/(1+r)^n]]/r$ 

(n)													
Periods	2%	2.5%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	15%
0.25	0.24692	0.24617	0.24542	0.24393	0.24247	0.24103	0.23961	0.23820	0.23682	0.23546	0.23411	0.23279	0.22891
0.5	0.49262	0.49082	0.48902	0.48548	0.48200	0.47857	0.47519	0.47187	0.46860	0.46537	0.46220	0.45907	0.44997
0.75	0.73711	0.73396	0.73084	0.72468	0.71862	0.71268	0.70683	0.70108	0.69543	0.68988	0.68441	0.67904	0.66343
1	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	0.86957
2	1.94156	1.92742	1.91347	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005	1.62571
3	2.88388	2.85602	2.82861	2.77509	2.72325	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183	2.28323
4	3.80773	3.76197	3.71710	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735	2.85498
5	4.71346	4.64583	4.57971	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478	3.35216
6	5.60143	5.50813	5.41719	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141	3.78448
7	6.47199	6.34939	6.23028	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376	4.16042
8	7.32548	7.17014	7.01969	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764	4.48732
9	8.16224	7.97087	7.78611	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825	4.77158
10	8.98259	8.75206	8.53020	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022	5.01877
11	9.78685	9.51421	9.25262	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770	5.23371
12	10.57534	10.25776	9.95400	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437	5.42062
13	11.34837	10.98318	10.63496	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355	5.58315
14	12.10625	11.69091	11.29607	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817	5.72448
15	12.84926	12.38138	11.93794	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086	5.84737
16	13.57771	13.05500	12.56110	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399	5.95423
17	14.29187	13.71220	13.16612	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	6.04716
18	14.99203	14.35336	13.75351	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	6.12797
19	15.67846	14.97889	14.32380	13.13394	12.08532	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578	6.19823
20	16.35143	15.58916	14.87747	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	6.25933