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Provisions on the Disclosure of Pricing Information on Consumer Credit

(Annual Percentage Rate [APR] – Provisions)

January 2015

1. Purpose

These Provisions on the Disclosure of Pricing Information on Consumer Credit (hereafter the "APR provisions") are primarily aimed at the protection of consumers by providing them with adequate information enabling them to make informed decisions when applying for consumer credit.

These APR provisions also serve to foster transparency in the local financial market and provide for a uniform APR-calculation method.

A maximum APR provision[1] is to be included in these APR provisions.

2. Definitions

For the purpose of these provisions the following definitions apply:

"Advertising" means any direct or indirect communication transmitted by any medium by means of which a lender promotes a consumer credit product[2].

"Annual Percentage Rate (APR)" means the total costs of the consumer credit, expressed as an annual percentage of the total credit amount. It is the effective rate of charge that reflects all the costs of the credit to the consumer over the duration of the credit agreement. (The equivalent and meaning for the APR in Dutch[3], Spanish[4] and Papiamentu[5] are set out in the footnotes to these provisions).

"Borrowing rate" means the nominal interest rate expressed as a percentage applied on an annual basis to the amount of credit draw downs. The borrowing rate is used for the calculation of the interest charges related to the credit.

"Consumer" means the individual applying for consumer credit.

"Consumer credit" comprises credit to be extended to consumers for personal or household purposes.

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[1] Based on the outcome of a further investigation, a maximum APR is to be included in these APR provisions which will apply for all new consumer credits.

[2] Advertisement with the sole purpose to promote brand awareness of a lender, including mentioning only the type of credit product, but excluding mentioning any other specific characteristics of the product such as its repayment terms and/or amendments of the consumer credit product are not considered "advertsing".

[3] Het jaarlijkse kostenpercentage: de totale kosten van het krediet voor de consument, uitgedrukt in een percentage op jaarbasis van het totale kredietbedrag. Onder de totale kosten van het krediet worden verstaan alle kosten van het krediet (exclusief verzekeringen), ondermeer rentekosten, commissie, belastingen en vergoedingen van welke aard dan ook, die de consument volgens de kredietovereenkomst moet betalen en die de kredietaanbieder bekend zijn.

[4] Tasa annual equivalente: es el costo de crédito al consumidor, expresado como un porcentaje de la cantidad de crédito concedió. El costo total de crédito incluye el interés, comisiones bancarias, los impuestos y cualquier otro tipo de gastos que el consumidor debe pagar relación con el contrato de crédito y que sean conocidos por el prestamista.

[5] Porsentahe di gastu anual: e kosto total di krédito ku e konsumidó mester paga, reflehá den un porsentahe anual di krédito. Un otro number ta 'porsentahe di gastu ekivalente anual'.

"Credit agreement" means a legally binding contract whereby a lender extends or promises to extend a certain amount of money to a consumer for a certain time period to be repaid by means of installments or otherwise.

"Lender" means an institution, a corporation or natural person listed in one of the divisions or annexes of the credit institutions' register maintained by the Bank who extends or promises to extend credit in the course of its trade, business or profession.

"Total cost of the credit to the consumer" means all the costs (excluding insurance costs) of the credit, including interest charges, commission, fees, taxes and any other directly related costs which the consumer is required to pay (according to the credit agreement) and which are known to the lender.

"Total credit amount" means the maximum amount allowed to be extended under a credit agreement.

3. Legal basis

These provisions are issued pursuant to article 2, paragraph 2 and article 45, paragraph 2 of the National Ordinance on the Supervision of Banking and Credit Institutions 1994 (N.G. 1994, no 4) and are made part of each individual license or dispensation in conjunction with a letter sent to its holder.

4. Applicability

The APR provisions apply as of May 1, 2015 to all locally operating lenders in Curaçao or Sint Maarten and will replace those of July 2004 on the Bank's website.

5. Disclosure of pricing information

To accomplish the objectives of the APR provisions, lenders are required to clearly disclose APR related information:

- when advertising;
- when responding to consumers' inquiries on consumer credit; or
- before extending a consumer credit.

5.1 Disclosure when advertising

When advertising, lenders must communicate in a clear and concise way, by means of an illustration such as in appendix 2, at least the main characteristic of a credit product. It is required that the borrowing rate along with particulars of any charges be included in the total cost of the consumer credit.

The advertisement must be clear and not containing any misleading, contradictory or inaccurate statements. Footnotes used must be of sufficient size and prominence to be legible. The abbreviation APR may be used if the term "annual percentage rate" is stated in full elsewhere in the advertisement. If the advertisement is based on assumptions, such assumptions must be stated, and if an advertisement states a rate of return it must be the APR.

5.2 Disclosure when responding to inquiries and before extending a consumer credit

In order for the consumer to make an informed decision as to whether to conclude a credit agreement, the lender must provide the consumer with all relevant information based on the credit terms and conditions offered.

When responding to inquiries on consumer credit or before extending a consumer credit, the consumer credit-specific information must specify at least the following:

- the type of credit;
- the characteristics of the credit product illustrated in appendix 2 along with an amortization table illustrated in appendix 3;
- the terms of the legal agreement between the consumer and the lender; and
- the conditions governing the application of the borrowing rate.

The lender must not coerce the consumer to obtain a product or service, such as an insurance policy, from a particular provider (entity or person), including the lender or any of its affiliates, as a condition to obtain the consumer credit.

Any consumer credit-specific information must be unambiguous, conspicuous and must be provided in writing on a durable medium.

Both the borrowing rate and APR must be clearly mentioned (in the same format) in the loan agreement. Furthermore, the consumer must sign a copy of a table as illustrated in appendix 2 before concluding a consumer credit.

A copy of the signed table as illustrated in appendix 2 and a signed declaration that the consumer accepted the insurance without any restraints must be kept on file.

6. The APR and the methods for its calculation

The APR is the annual percentage rate which equates, on an annual basis, the present value of all commitments (credit draw downs, repayments and financial charges), future or existing, agreed upon between the lender and the consumer. The APR must be calculated in accordance with the mathematical formula and the methods set out in appendix 1.

For APR calculation purposes, the total cost of the credit to the consumer must be determined. The calculation of the APR must be based on the assumption that the credit agreement remains valid for the period agreed upon, and that the APR and other charges will remain fixed in relation to the borrowed amount during the duration of the credit agreement.

7. Recordkeeping

Lenders must keep APR-related records for at least ten (10) years after expiration of the credit agreement. A lender can demonstrate compliance with these APR-provisions by demonstrating that it has:

- established procedures for providing disclosure as set out in paragraph 5;
- followed the procedures; and
- retained disclosures, copies of advertisements and change-in-terms notices and information on borrowing rates and APR's offered.

During its on-site examinations, the Bank will verify the compliance with these APR provisions.

Centrale Bank van Curaçao en Sint Maarten
Willemstad, January 2015

Dr. E.D. Tromp
President

APPENDIX 1

Methods to calculate the Annual Percentage Rate (APR)

The APR is the annual percentage rate which indicates the total cost of the credit to the consumer over the duration of the credit agreement. The APR can be obtained once the payments and draw downs are known. In order to compare the different cash flows at different times these flows are valued in the present. The present value rule is used to quantify the average costs of the consumer credit over the duration of the credit agreement. Taking into account the compounding frequency, this percentage rate is an equivalent rate calculated as if compounded annually[6]. In case of other compounding frequencies (e.g. daily, monthly, quarterly, semi-annual), the borrowing rates have to converted to allow for comparison, as only with a yearly compounding frequency we obtain the annual percentage rate.

According to paragraph 6, the APR is the annual percentage rate which equates the present value of the draw downs to the present value of the repayments. This equation can be expressed through formula (1), in which 'X' is the APR to be calculated. The left hand side of the equation is the present value of the draw downs on the credit and the right hand side represents the present value of the repayments.

$$\sum_{k=1}^{m} C_k (1+X)^{-t_k} = \sum_{l=1}^{m'} D_l (1+X)^{-s_l} \qquad (1)$$

in which:

- X is the APR,
- m is the number of the last drawdown,
- k is the number of a drawdown, thus $1 \leq k \leq m$,
- C_k is the amount of drawdown k,
- t_k is the interval, expressed in years and fractions of a year, between the date of the first drawdown and the date of each subsequent drawdown, thus $t_1 = 0$,

- m' is the number of the last repayment or payment of charges,
- l is the number of a repayment or payment of charges,
- D_l is the amount of a repayment or payment of charges,
- s_l is the interval, expressed in years and fractions of a year, between the date of the first drawdown and the date of each repayment or payment of charges.

The only unknown in formula (1) is the X, which is the APR to be calculated. To calculate the APR we must first calculate the annuity (installments) i.e. the periodic payments. In the case of equal monthly payments we can use formula (2) or the payment function in Microsoft excel (PMT-function) (3) to calculate the annuity[7], taking into account the total cost of the credit.

$$P = \frac{i(PV)}{1-(1+i)^{-n}} \qquad (2)$$

or the alternative for the same formula $P = \frac{i(1+i)^n(PV)}{(1+i)^n - 1}$ (2a)

In formula (2) and 2(a):

- P (payment) is the annuity payment or the size of each installment;
- the borrowing rate is given by i;
- PV is the present value or the total amount that a series of future payments is worth now which is equal to the principal of the loan (or credit amount): and
- n is the number of installments (payments to be made) per year.

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6 Nominal rates with different compounding frequencies cannot be compared.

7 The annuity or installment, being the monthly equal payment, typically includes a principal and an interest element.

Using Microsoft excel the periodic payment (P) can be calculated with the PMT-function, formula (3).

$$P = PMT(interest\_rate, number\_payments, PV, FV, Type) \quad (3)$$

In this PMT-function:

- interest_rate is the borrowing rate for the loan,
- number_payments is the number of payments for the loan;
- PV is the present value or the total amount that a series of future payments is worth now or the principal of the loan,
- the future value, FV, is the cash balance after the last payment on the loan (=0),
- Type is whether the payment is made at the beginning or end of a period.

Examples

FEATURE	INSTALLMENT CREDITS
Amount	NAf.10,000
Duration	3 years
Frequency of payment	Monthly
Borrowing rate	10% nominal
Other charges and fees	Administrative costs NAf.100
Insurance costs	5% of initial amount of credit

1. Calculating the annuity or installments

The following examples illustrate the calculations of the periodic payments by using both formula (2) and the Microsoft Excel PMT-function (3):

Table 1

Consumer	A
Credit amount	10,000
Borrowing rate	10%
Number of years	3
Number of (monthly) payments	36

A. Method 1: calculating the annuity with formula 2

The annuity for consumer A is calculated by using formula 2 as follows:

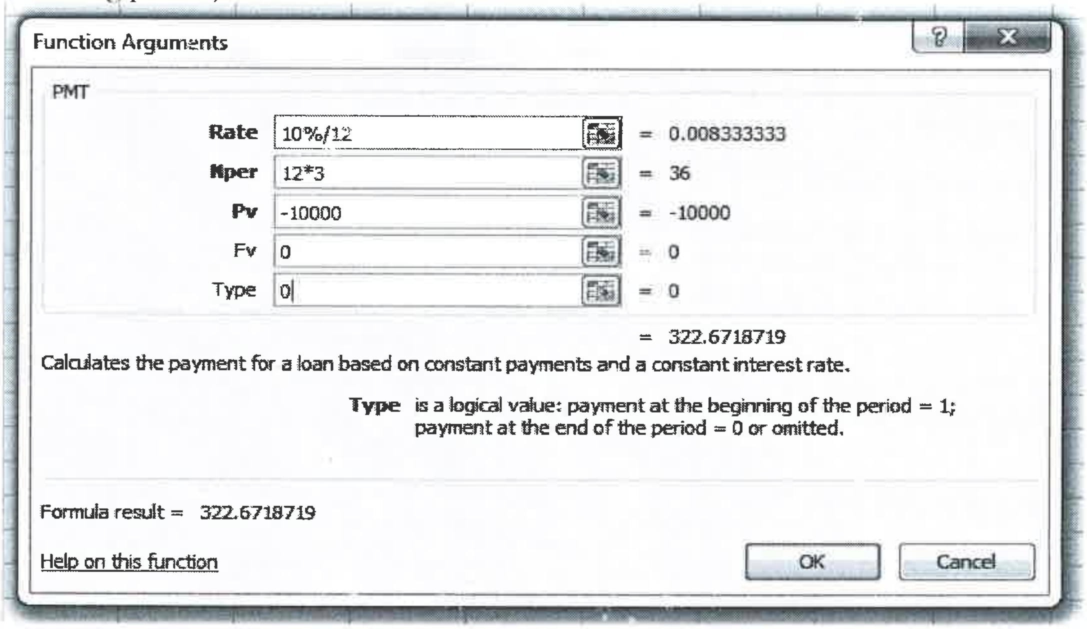
$$P = \frac{\left(\frac{0.10}{12}\right)*(10000)}{1-\left(1+\left(\frac{0.10}{12}\right)\right)^{-36}} = 322.67$$

We obtain at the same results if we use the alternative formula 2a:

$$P = \frac{\left(\frac{0.10}{12}\right)\left(1+\left(\frac{0.10}{12}\right)\right)^{36} *(10000)}{\left(1+\left(\frac{0.10}{12}\right)\right)^{36} - 1} = 322.67 \text{ for consumer A;}$$

B. Method 2: calculating the annuity with Microsoft excel

The same results will be arrived at when using the Microsoft excel PMT-function see the following picture).



2. Calculating the annual percentage rate, APR

<u>Case A: There are only interest charges</u>

We are assuming in this example that there are **only** interest charges and no other costs. In this specific case (only charges for interest), the annual percentage rate that we are calculating is equal to the effective borrowing rate and can be calculated by formula (4).

The annual percentage rate is the annual borrowing rate that takes account of the effects of compounding and can be expressed in the following formula:

$$X = \left(1 + \frac{i}{n}\right)^{n} - 1 \qquad (4)$$

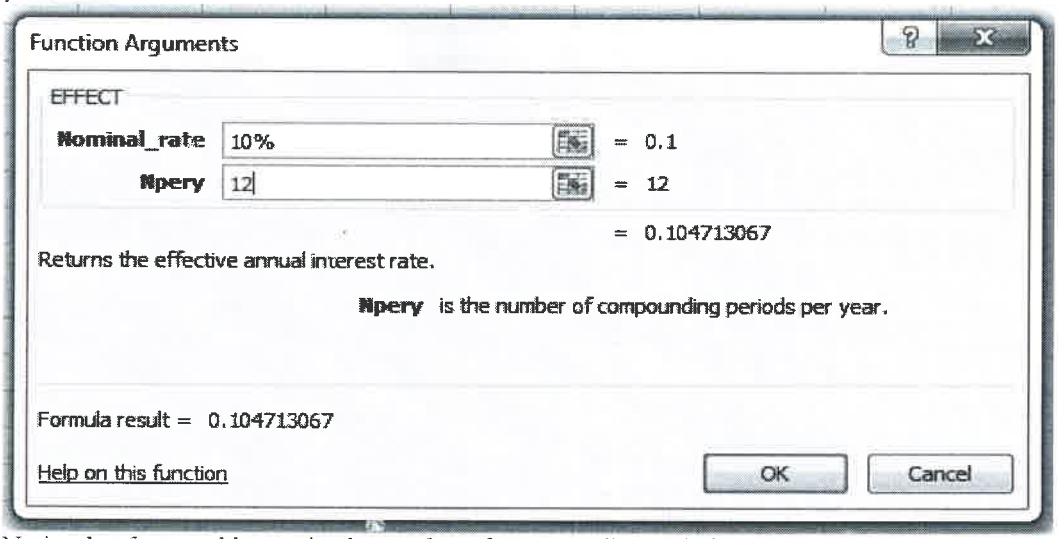
where X is the APR to be calculated, i is the borrowing rate per period and n is the number of compounding periods.

Consumer A (see table 1) is making monthly payments at a borrowing rate of 10% and pays off the loan in 12 compounding periods; according to formula 4, the annual percentage rate will be:

$$\left(1 + \frac{0.10}{12}\right)^{12} - 1 = 10.47\%;$$

The finance charge on a loan can also be calculated by using software products. Microsoft Excel contains some excellent functions for determining the pricing of credit products. We recommend the use of, for instance, the "EFFECT-function and the NOMINAL-function. The

EFFECT function returns the annual interest rate, given the borrowing rate and the number of compounding periods per year. The NOMINAL function, on the other hand, returns the nominal interest rate, given the annual interest rate and the number of compounding periods in a year.



Notice that for monthly annuity the number of compounding periods per year, 12, must be taken into account.

Case B: In addition to interest charges also are other charges

Table 2

Consumer	B
Credit amount	NAf.10,000.00
Borrowing rate	10%
Number of years	3
Number of (monthly) payments	36
Administrative costs (one time)	NAf.100.00
Insurance (annually)	NAf.250.00

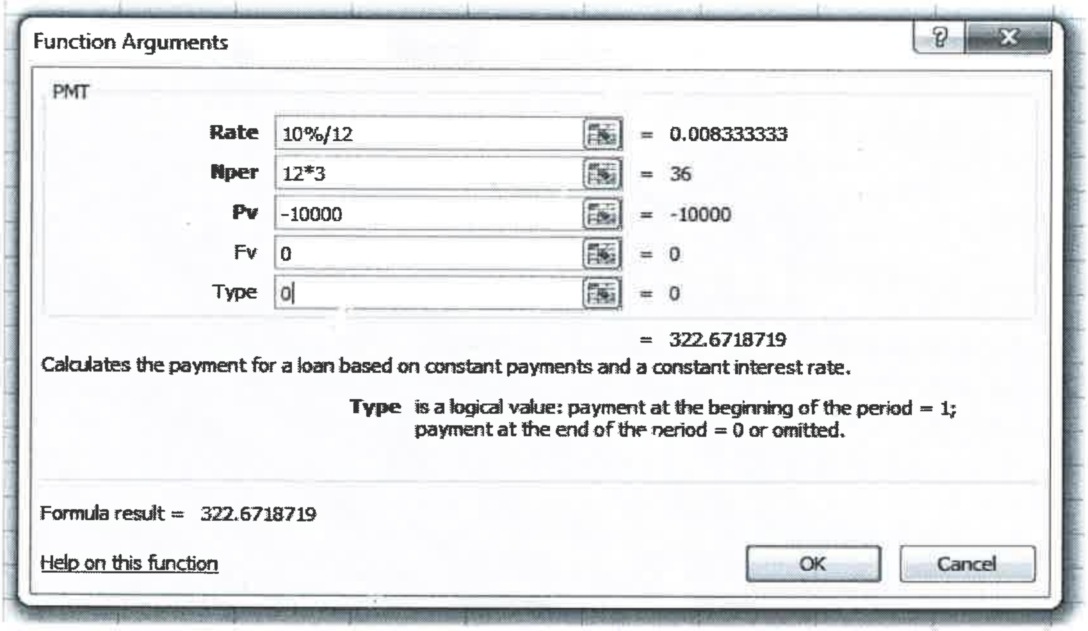
Assumptions made in calculating the annual percentage rate

Total amount of credit is drawdown in full.

Starting date must be the date of the first draw down.

365 days convention

Results of calculation must be expressed with an accuracy of at least one decimal place.


Function Arguments
PMT
Rate 10%/12 = 0.008333333
Nper 12*3 = 36
Pv -10000 = -10000
Fv 0 = 0
Type 0 = 0
= 322.6718719
Calculates the payment for a loan based on constant payments and a constant interest rate.
Type is a logical value: payment at the beginning of the period = 1; payment at the end of the period = 0 or omitted.
Formula result = 322.6718719
Help on this function
OK
Cancel

APPENDIX 2: table with main characteristics of the credit product

Example table to be disclosed when advertising, inquiring on, or before extending consumer credit.

DESCRIPTION OF THE MAIN CHARACTERISTICS OF THE CREDIT PRODUCT					
Amount of Consumer credit [1]	Borrowing rate [2]	APR [3]	Installments[4]	Duration[5]	Total amount to be paid by the consumer on consumer credit [6]
Valid until:					

[1] Is the total amount of credit offered
[2] Is the interest rate offered by the credit provider
[3] Is the calculated APR
[4] Is the amount that the consumer nas to pay periodically.
[5] Is the duration of the credit agreement
[6] Is the sum of total amount of credit and total cost of credit

APPENDIX 3: amortization table

Main results

Caution: The information might not be valid if changes have been made after pressing the button 'Calculate' and, as a result, the Final balance at the last period and/or the Present value of the cash flows are not zero. Cautionary notes are shown if this happens. Use the buttons 'Recalculate' to solve these situations.

Final balance in the last period 0.00
Amount of the first repayment 322.67 DYNAMIC Recalculate
Duration of the credit 36

Present value of the cash flows 0.00
Annual Percentage Rate of Cha 16.1% DYNAMIC Recalculate

Total cost of the cred 2416.12
Total amount of credi 10000.00
Total amount payable 12416.12
Obs: (*)

Period	Drawdown	Balance				Interest on capital		Other costs		Payments					Other I/E		Cash flows	
		Initial	Outstanding (only capital)	Outstanding (capital plus interest)	Final	Borrowing rate (%)	Interest charges	Not financed	Financed	Repayment of the credit: Capital amortisat.	Interest	Total	Costs not financed	Total	Income	Expenses	Value at each period	Present value
0	10000.00				10000.00			300.00					300.00	300.00			9700.00	9700.00
1		10000.00	10000.00	10083.33	9760.66	10.00%	83.33			239.34	83.33	322.67	0.00	322.67			-322.67	-318.68
2		9760.66	9760.66	9842.00	9519.33	10.00%	81.34			241.33	81.34	322.67	0.00	322.67			-322.67	-314.74
3		9519.33	9519.33	9598.66	9275.98	10.00%	79.33			243.34	79.33	322.67	0.00	322.67			-322.67	-310.84
4		9275.98	9275.98	9353.28	9030.61	10.00%	77.30			245.37	77.30	322.67	0.00	322.67			-322.67	-307.00
5		9030.61	9030.61	9105.87	8783.20	10.00%	75.26			247.42	75.26	322.67	0.00	322.67			-322.67	-303.20
6		8783.20	8783.20	8856.39	8533.72	10.00%	73.19			249.48	73.19	322.67	0.00	322.67			-322.67	-299.45
7		8533.72	8533.72	8604.83	828[illegible]	10.00%	71.11			251.56	71.11	322.67	0.00	322.67			-322.67	-295.75
8		8282.16	8282.16	8351.18	8028.51	10.00%	69.02			253.65	69.02	322.67	0.00	322.67			-322.67	-292.09
9		8028.51	8028.51	8095.41	7772.74	10.00%	66.90			255.77	66.90	322.67	0.00	322.67			-322.67	-288.47
10		7772.74	7772.74	7837.51	7514.84	10.00%	64.77			257.90	64.77	322.67	0.00	322.67			-322.67	-284.91
11		7514.84	7514.84	7577.46	7254.79	10.00%	62.62			260.05	62.62	322.67	0.00	322.67			-322.67	-281.38
12		7254.79	7254.79	7315.25	6992.58	10.00%	60.46			262.22	60.46	322.67	0.00	322.67			-322.67	-277.90
13		6992.58	6992.58	7050.85	6728.17	10.00%	58.27	250.00		264.40	58.27	322.67	250.00	572.67			-572.67	-487.11
14		6728.17	6728.17	6784.24	6461.57	10.00%	56.07			266.60	56.07	322.67	0.00	322.67			-322.67	-271.07
15		6461.57	6461.57	6515.42	6192.75	10.00%	53.85			268.83	53.85	322.67	0.00	322.67			-322.67	-267.71
16		6192.75	6192.75	6244.35	5921.68	10.00%	51.61			271.07	51.61	322.67	0.00	322.67			-322.67	-264.40
17		5921.68	5921.68	5971.03	5648.36	10.00%	49.35			273.32	49.35	322.67	0.00	322.67			-322.67	-261.13
18		5648.36	5648.36	5695.43	5372.75	10.00%	47.07			275.60	47.07	322.67	0.00	322.67			-322.67	-257.90
19		5372.75	5372.75	5417.53	5094.85	10.00%	44.77			277.90	44.77	322.67	0.00	322.67			-322.67	-254.71
20		5094.85	5094.85	5137.31	4814.64	10.00%	42.46			280.21	42.46	322.67	0.00	322.67			-322.67	-251.56
21		4814.64	4814.64	4854.76	4532.09	10.00%	40.12			282.55	40.12	322.67	0.00	322.67			-322.67	-248.45
22		4532.09	4532.09	4569.86	4247.19	10.00%	37.77			284.90	37.77	322.67	0.00	322.67			-322.67	-245.38
23		4247.19	4247.19	4282.58	3959.91	10.00%	35.39			287.28	35.39	322.67	0.00	322.67			-322.67	-242.34
24		3959.91	3959.91	3992.91	3670.23	10.00%	33.00			289.67	33.00	322.67	0.00	322.67			-322.67	-239.34
25		3670.23	3670.23	3700.82	3378.15	10.00%	30.59	250.00		292.09	30.59	322.67	250.00	572.67			-572.67	-419.53
26		3378.15	3378.15	3406.30	3083.63	10.00%	28.15			294.52	28.15	322.67	0.00	322.67			-322.67	-233.46
27		3083.63	3083.63	3109.32	2786.65	10.00%	25.70			296.97	25.70	322.67	0.00	322.67			-322.67	-230.57
28		2786.65	2786.65	2809.87	2487.20	10.00%	23.22			299.45	23.22	322.67	0.00	322.67			-322.67	-227.72
29		2487.20	2487.20	2507.93	2185.26	10.00%	20.73			301.95	20.73	322.67	0.00	322.67			-322.67	-224.90
30		2185.26	2185.26	2203.47	1880.80	10.00%	18.21			304.46	18.21	322.67	0.00	322.67			-322.67	-222.12
31		1880.80	1880.80	1896.47	1573.80	10.00%	15.67			307.00	15.67	322.67	0.00	322.67			-322.67	-219.37
32		1573.80	1573.80	1586.91	1264.24	10.00%	13.11			309.56	13.11	322.67	0.00	322.67			-322.67	-216.66
33		1264.24	1264.24	1274.78	952.10	10.00%	10.54			312.14	10.54	322.67	0.00	322.67			-322.67	-213.98
34		952.10	952.10	960.04	637.37	10.00%	7.93			314.74	7.93	322.67	0.00	322.67			-322.67	-211.33
35		637.37	637.37	642.68	320.01	10.00%	5.31			317.36	5.31	322.67	0.00	322.67			-322.67	-208.72
36		320.01	320.01	322.67	0.00	10.00%	2.67			320.01	2.67	322.67	0.00	322.67			-322.67	-206.13