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:(17)

choix des investissements

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1.600.000

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2.000.000

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" "				
(1)				
11.000	480.000	390.000	1.300.000	1
55.000	490.000	380.000	1.400.000	2
60.000	490.000	385.000	1.450.000	3
60.000	495.000	380.000	1.460.000	4
70.000	500.000	390.000	1.500.000	5

· (1)

" "				
(2)				
120.000	405.000	385.000	1.600.000	1
140.000	410.000	395.000	1.580.000	2
150.000	412.000	400.000	1.560.000	3
150.000	415.000	425.000	1.550.000	4
180.000	415.000	430.000	1.520.000	5

· (2)

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1. :

2. :

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1.2. :

2.2. :

3.2. :

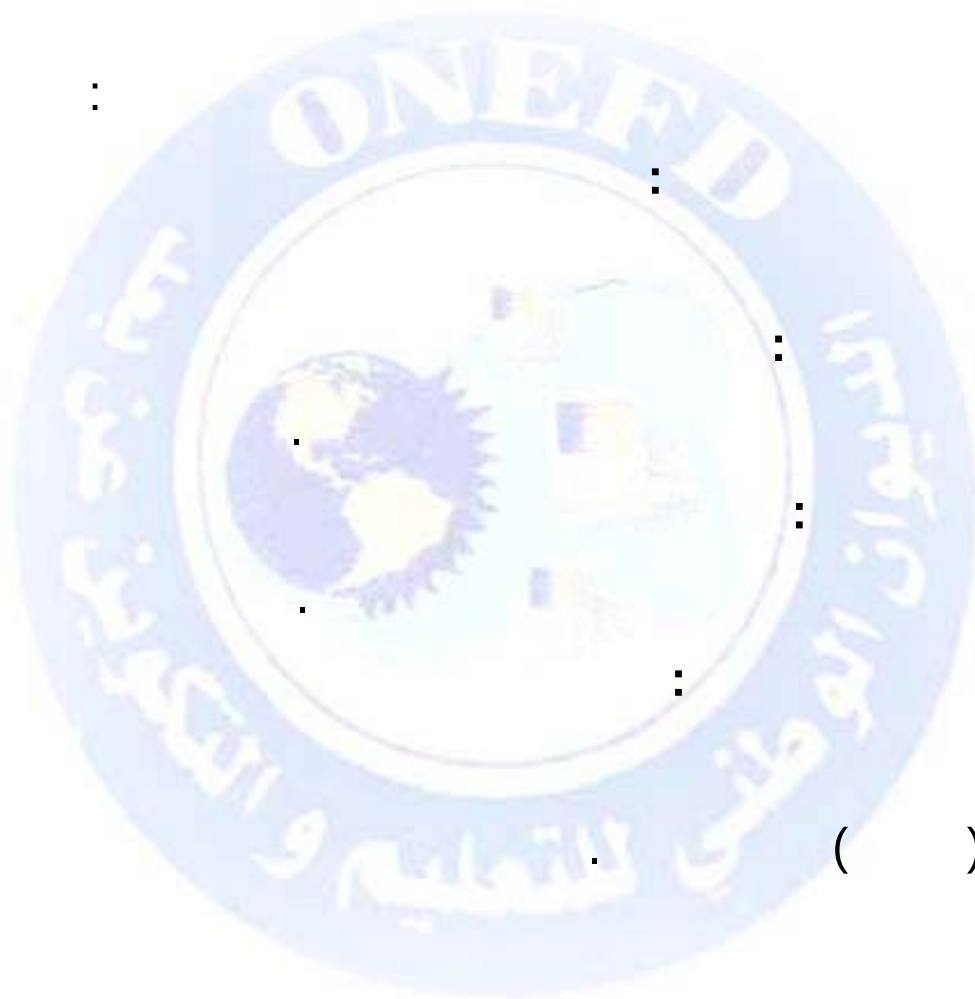
()

100%.

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1.1.

2.1.

3.1.

4.1.

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التأثير على الخزينة	
إيرادات الاستغلال القابلة للتحويل المحملة على الاستثمار	نفقات الاستغلال القابلة للتسديد المحملة على الاستثمار
	مخصصات الاهتلاكات
	الربح الصافي
	الضرائب على الأرباح

قدرة التمويل الذاتي

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قدرة التمويل الذاتي = إيرادات الاستغلال المحصلة المحملة على الاستثمار -
نفقات الاستغلال المسددة المحملة على الاستثمار - الضرائب على الأرباح.

ملاحظة

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5	4	3	2	1	
1.500.000	1.460.000	1.450.000	1.400.000	1.300.000	.1
960.000	935.000	935.000	925.000	859.000	.2
320.000	320.000	320.000	320.000	320.000	.3
220.000	205.000	195.000	155.000	121.000	
55.000	51.250	48.750	38.750	30.250	.4
165.000	153.750	146.250	116.250	90.750	.5
485.000	473.750	466.250	436.250	410.750	.6

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: (VAN)

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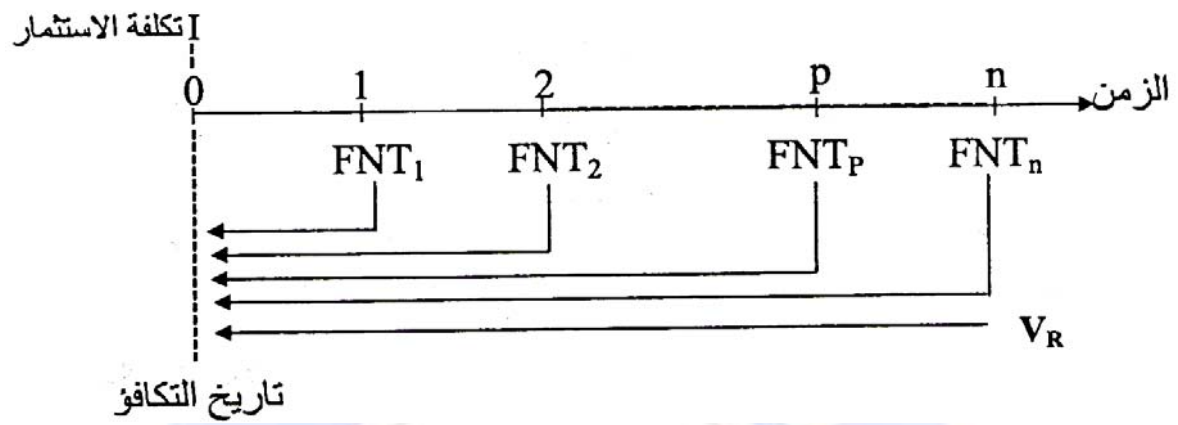
$FNT_1, FNT_2, FNT_3, \dots, FNT_p \dots FNT_N$

وفي نهاية العمر الإنتاجي للاستثمار قد تكون للاستثمار قيمة متبقية "VR".

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"i"

()



$$VAN = FNT_1 (1+i)^{-1} + FNT_2 (1+i)^{-2} + \dots + FNT_p (1+i)^{-p} + \dots + FNT_N (1+i)^{-n} + VR (1+i)^{-n} - I$$

ملاحظة

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(VAN)



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$$\mathbf{VAN}=410.750(1,08)^{-1} + 436.250(1,08)^{-2} + 466.250(1,08)^{-3} \\ + 473.750(1,08)^{-4} + 473.750(1,08)^{-5} - 1.600.000$$

2	1	0	
436.250	410.750	1.600.000 -	FNT " " I "
0,857339	0,925926	1	$(1+i)^{-n}$ 8%
374.014,1388	380.324,1045	1.600.000 -	
84.5661,7567 -	1.219.675,8955 -	1.600.000 -	

()

5	4	3	
485.000	473.750	466.250	FNT I
0,680583	0,735030	0,793832	$(1+i)^{-n}$ 8%
330.082,755	348.220,462 5	370.124,17	
202.765,630 + 8	127.317,124 - 2	475.537,5867 -	
202.765,630 + 8	(VAN)		

" "

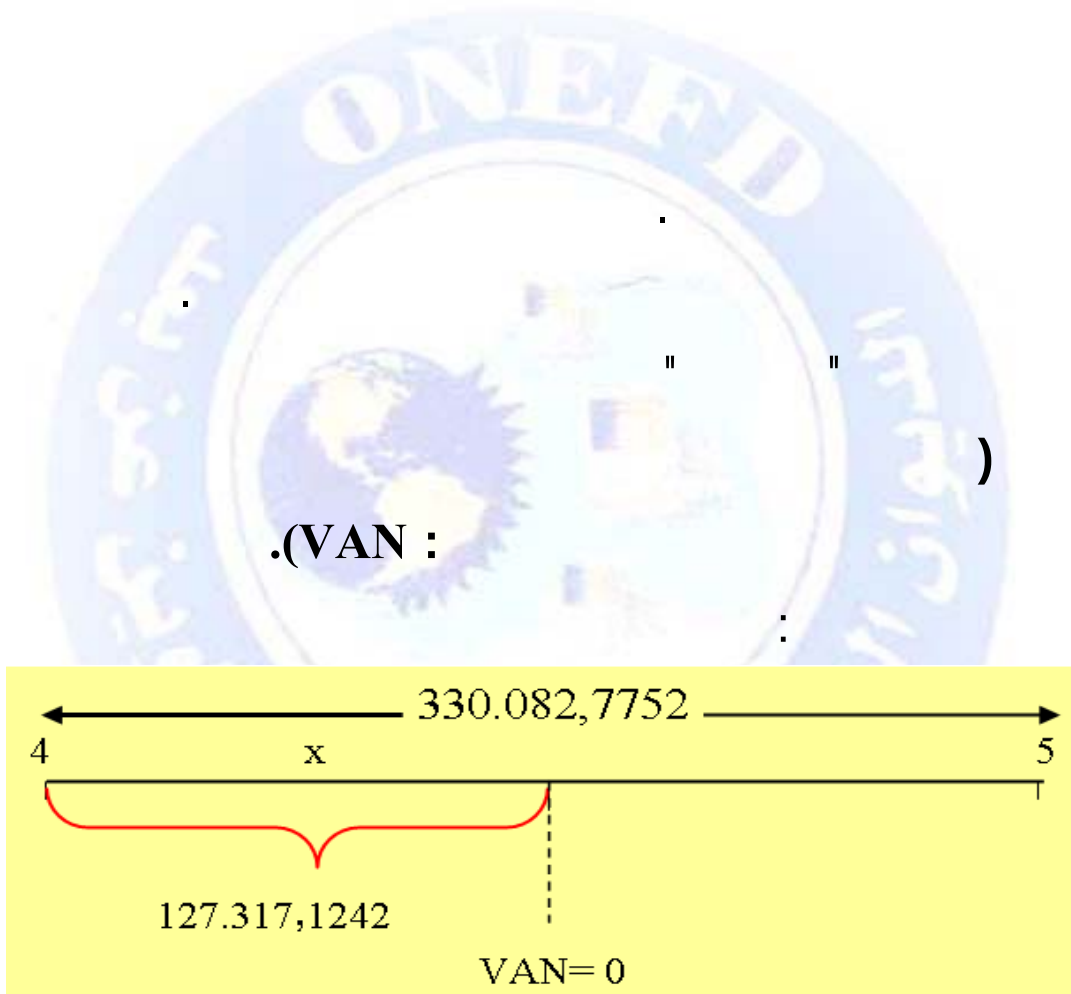
(VAN)

(DRCI)

.2.2

$$VAN = 0 : (VAN)$$

$$VAN = FNT_1 (1+i)^{-1} + FNT_2 (1+i)^{-2} + \dots + FNT_p (1+i)^{-p} \\ + \dots + FNT_N (1+i)^{-n} + VR (1+i)^{-n} - I = 0$$



$$330.082,7752 \rightarrow \text{يوما } 360$$

$$127.317,1242 \rightarrow x$$

$$x = \frac{127.317,1242 \times 360}{330.082,7752} = \text{يوما } 139$$

4 4 (DRCI)

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(VAN)

VAN

(VAN)

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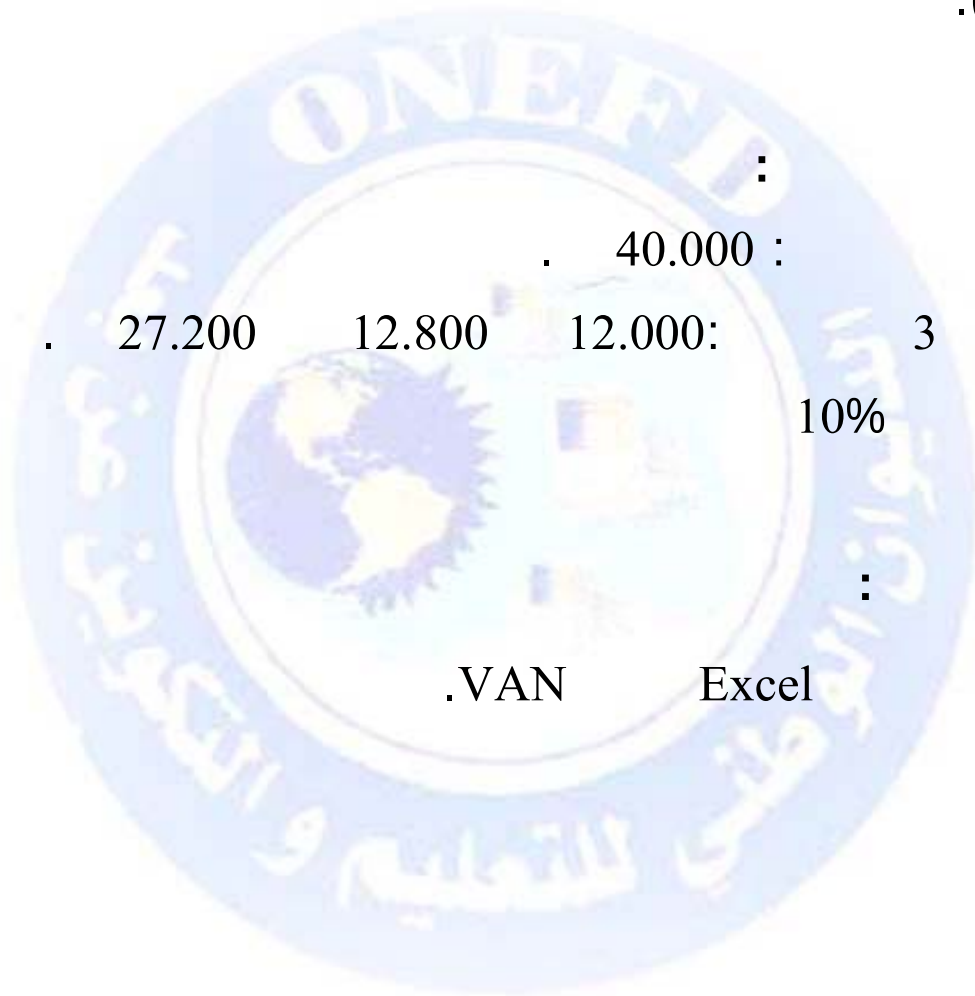
" "			" "			8%
+ 204158,0946			6308,+ 202765			VAN
11	4	4	19	4	4	: DRCI



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EXCEL

.(VAN)



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VAN

VA

VAN

Microsoft Excel - Classeur1

Fichier Edition Affichage Insertion Format Outils Données Fenêtre ? Adobe PDF

Simplified Arabic 10 G S

VAN =VAN()

Arguments de la fonction

VAN

Taux = nombre

Valeur1 = nombre

Valeur2 = nombre

=

Calcule la valeur actuelle nette d'un investissement fondé sur des flux financiers non constants et une série de débits futurs (valeurs négatives) et de crédits (valeurs positives).

Taux: est le taux d'actualisation pour une période.

Résultat =

[Aide sur cette fonction](#)

OK Annuler

G	F	E	D	C	B	A	
					-40000	القيمة الأصلية	1
					12000	1	2
					12800	2	3
					27200	3	4
					=VAN()	القيمة الحالية الصافية (VAN)	5
							6
							7
							8
							9
							10
							11
							12

Feuil3 Feuil2 Feuil1

Modifier NUM FIX

. %

Microsoft Excel - Classeur1

Fichier Edition Affichage Insertion Format Outils Données Fenêtre ? Adobe PDF Tapez une question

Simplified Arabic 10

VAN =VAN(10%;B1:B4)

Arguments de la fonction

VAN

Taux 10% = 0,1

Valeur1 B1:B4 = {-40000;12000;12800;27200}

Valeur2 = nombre

= 1748,514446

Calcule la valeur actuelle nette d'un investissement fondé sur des flux financiers non constants et une série de débits futurs (valeurs négatives) et de crédits (valeurs positives).

Valeur1: valeur1;valeur2;... sont de 1 à 29 encaissements et décaissements, également répartis dans le temps et se produisant à la fin de chaque période.

Résultat = 1.748,51 DA

[Aide sur cette fonction](#) OK Annuler

B	A	
-40000	القيمة الأصلية	1
12000	1ت	2
12800	2ت	3
27200	3ت	4
=VAN(10%;B1:B4)	القيمة الحالية الصافية (VAN)	5
		6
		7
		8
		9
		10
		11
		12

Feuil3 Feuil2 Feuil1

NUM FIX

1.748,51 DA

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" "	" "	
285.000	270.000	" "
5	5	
5	5	
189.000	189.000	
82.500	90.000	
00	00	
% 25	%25	
%7	%7	

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- .()
- .(VAN) .(DRCI)

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- 1.
 2. (VAN)
- (DRCI)

:(2)

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02	01	
280.000	210.000	
4	4	
25%	25%	
0	0	
12	14	()
% 25	% 25	
21	21	
10%	10%	

•

:

200N+4	200N+3	200N+2	200N+1	
12000	12000	12000	10000	

:

.1

.2

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:(3)

" "

1.400.000

:

		200N+4	200N+3	200N+2	200N+1	
10%	0	420.000	430.000	450.000	500.000	
10%	0	450.000	450.000	450.000	450.000	

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:(4)

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(1

800.000

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180.000

400.000

50.000

(2) :

1.200.000

500.000

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%12

:(5)

(1)

2010

400.000

2011.

300.000

2012.

300.000

2013.

300.000

.2014

300.000

360.000

6

(2) :

2010 6

:

6 350.000

150.000 2011

6 300.000

200.000

140.000

10%

:(6)

:(1)

750.000 : -

5 : -

40.000 : () -

160.000 : -

420.000

(2) () :

- : 900.000

- : 5

- :

- 350.000 .

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. %10

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" "

5	4	3	2	1	
189.000	189.000	189.000	189.000	189.000	.1
90.000	90.000	90.000	90.000	90.000	.2
54.000	54.000	54.000	54.000	54.000	. 3
45.000	45.000	45.000	45.000	45.000	❖ =1 - (2+3):
11.250	11.250	11.250	11.250	11.250	.4
33.750	33.750	33.750	33.750	33.750	: .5
87.750	87.750	87.750	87.750	87.750	: 6 =3+5 .6

" "

5	4	3	2	1	
189.000	189.000	189.000	189.000	189.000	.1
82.500	82.500	82.500	82.500	82.500	.2
57.000	57.000	57.000	57.000	57.000	. 3
49.500	49.500	49.500	49.500	49.500	❖ =1-(2+3)
12.375	12.375	12.375	12.375	12.375	.4
37.125	37.125	37.125	37.125	37.125	: .5
94.125	94.125	94.125	94.125	94.125	: 6 =3+5 .6

:

.2

VAN :

.1.2

:" " *

		7%	I FNT	
- 270.000	- 270.000	1	- 270.000	00
- 187.990,69	82.009,31	0,934579	87.750	01
- 111.346,46	76.644,27	0,873439	87.750	02
- 39.716,27	71.630,15	0,816298	87.750	03
+27.227,77	66.944,04	0,762895	87.750	04
+89.792,27	62.564,52	0,712986	87.750	05

+89.792,29 DA " " VAN

:" " *

		7%	I FNT	
- 285.000	- 285.000	1	- 285.000	00
- 197.032,75	87.967,25	0,934579	94.125	01
- 114.820,3	82.212,45	0,873439	94.125	02
- 37.986,25	76.834,05	0,816298	94.125	03
+33.821,24	71.807,49	0,762895	94.125	04
+100.931,05	67.109,81	0,712986	94.125	05

+100.931,05DA " " VAN

. " " " " VAN *

2.2 :

* " "

فترة الاسترداد محصورة
بين 3 و 4

82.009,31	82.009,31	1
158.653,58	76.644,27	2
230.283,73	71.630,15	3
297.227,77	66.944,04	4
359.792,29	62.564,52	5

270.000

:

$$(297.227,77 - 230.283,73) \rightarrow 360 j$$

$$(270.000 - 230.283,73) \rightarrow x$$

$$x = \frac{(270.000 - 230.283,73)}{(297.227,77 - 230.283,73)} \times 360 j$$

$$x = \frac{39.716,27}{66.944,04} \times 360 = 213,58 j$$

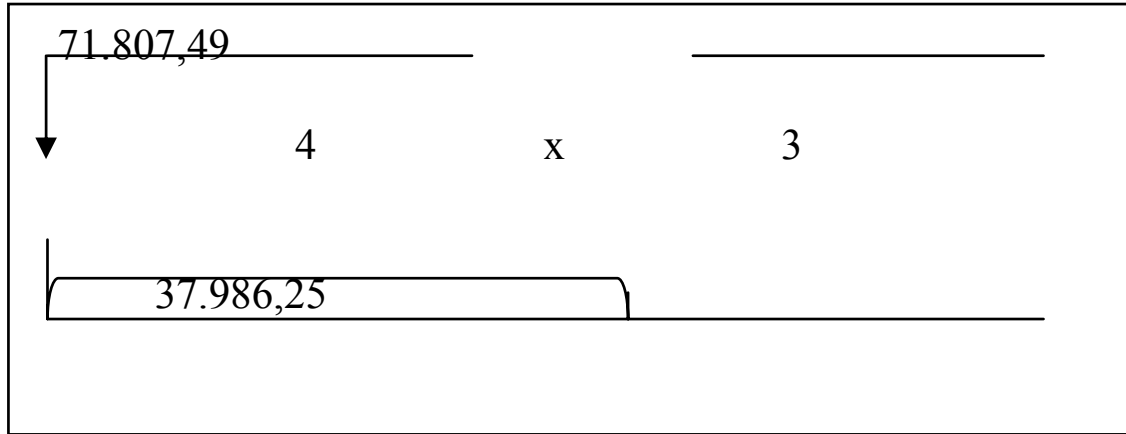
$$x \square 214 j$$

		3
7	7,13=	30÷ 214
4	3,9=	30×0,13

4 7 3 " " *

:" "

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$$x = \frac{37.986,25}{71807,49} \times 360 = 190,44 \text{ j}$$

$$x \square 191 \text{ j}$$

. 11 6 3 " " *

" "

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:(1) 1.1

4	3	2	1	
$=21 \times 12000$ 252.000	$=21 \times 12000$ 252.000	$=21 \times 12000$ 252.000	$=21 \times 10000$ 210.000	(1
$=14 \times 12000$ 168.000	$=14 \times 12000$ 168.000	$=14 \times 12000$ 168.000	$=14 \times 10000$ 140.000	: (2
52.500	52.500	52.500	52.500	(3
220.500	220.500	220.500	192.500	
31.500	31.500	31.500	17.500	
7.875	7.875	7.875	4.375	(4
23.625	23.625	23.625	13.125	(5
76.125	76.125	76.125	65.625	(5+3)

:(2) 2.1

4	3	2	1	
252.000	252.000	252.000	210.000	(1
144.000	144.000	144.000	120.000	(2
70.000	70.000	70.000	70.000	3
214.000	214.000	214.000	190.000	
38.000	38.000	38.000	20.000	
9.500	9.500	9.500	5.000	(4
28.500	28.500	28.500	15.000	(5
98.500	98.500	98.500	85.000	(5+3)

.2

.1.2 : (1)

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		10%		
210.000 -	210.000 -	$1 = {}^0(1,1)$	-210.000	00
150.341 -	59.659	$0,909091 = {}^1(1,1)$	65.625	01
87.428 -	62.913	$0,826446 = {}^2(1,1)$	76.125	02
30.234 -	57.194	$0,751315 = {}^3(1,1)$	76.125	03
+21.761	51.994	$0,683013 = {}^4(1,1)$	76.125	04

-

4	3	2	1	
51.994	57.194	52.913	59.659	
221.760	169.766	112.572	59.659	

(210.000)

$$(221.760 - 169.766) \rightarrow 360 \text{ j}$$

$$(210.000 - 169.766) \rightarrow x$$

$$51994 \rightarrow 360 \text{ j}$$

$$40234 \rightarrow x$$

$$x = \frac{40.234}{51.994} \times 360 = 278,57 \text{ j}$$

$$x \square 279 \text{ j}$$

$$\cdot \quad 9 \quad 9 \quad 3 \quad (1)$$

2.2. : (2)

		10%		
280.000 -	280.000 -	$1 = {}^0(1,1)$	-280.000	00
209.752 -	70.248	$0,909091 = {}^1(1,1)$	85.000	01
128.347 -	81.405	$0,826446 = {}^2(1,1)$	98.500	02
54.343 -	74.005	$0,751315 = {}^3(1,1)$	98.500	03
+12.934	67.277	$0,683013 = {}^4(1,1)$	98.500	04

4	3	2	1	
67.277	74.005	81.405	70.248	
292.935	225.658	151.653	70.248	

(280.000)

$$(292.935 - 225.658) \rightarrow 360 \text{ j}$$

$$(280.000 - 225.658) \rightarrow x$$

$$67.277 \rightarrow 360 \text{ j}$$

$$54.342 \rightarrow x$$

$$x = \frac{54.342}{67.277} \times 360 = 290,78 \text{ j}$$

$$x \square 291 \text{ j}$$

$$\cdot \quad 21 \quad 9 \quad 3 \quad (2)$$

:(3)

.1

		10%		
1.400.000 -	1.400.000 -	$1 = {}^0(1,1)$	-1.400.000	00
945.455 -	454.545	$0,909091 = {}^1(1,1)$	500.000	01
-573.554	371.901	$0,826446 = {}^2(1,1)$	450.000	02
250.488 -	323.065	$0,751315 = {}^3(1,1)$	430.000	03
36.377	286.865	$0,683013 = {}^4(1,1)$	420.000	04

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.2

		10%		
1.400.000 -	1.400.000 -	$1 = {}^0(1,1)$	-1.400.000	00
990.909 -	409.091	$0,909091 = {}^1(1,1)$	450.000	01
619.008 -	371.901	$0,826446 = {}^2(1,1)$	450.000	02
280.917 -	338.092	$0,751315 = {}^3(1,1)$	450.000	03
26.439	307.356	$0,683013 = {}^4(1,1)$	450.000	04

▪

:(4)

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.1

: VAN

		12%		
800.000,00-	800.000,00-	1,000000	800.000-	0
639.285,71-	160.714,29	0,892857	180.000	1
320.408,16-	318.877,55	0,797194	400.000	2
35.696,06-	284.712,10	0,711780	400.000	3
218.511,17	254.207,23	0,635518	400.000	4
445.481,91	226.970,74	0,567427	400.000	5
473.853,25	28.371,34	0,567427	50.000	5

: DRCI

5	5	4	3	2	1	
28.371,34	226.970,74	254.207,23	284.712,10	318.877,55	160.714,29	
1.273.853,25	1.245.481,91	1.018.511,17	764.303,94	479.591,84	160.714,29	

(800.000)

:

(1.018.511,17– 764.303,94) → 360 j

(800.000 – 764.303,94) → x

254.207,23 → 360 j

35.696,06 → x

$$x = \frac{35.696,06}{254.207,23} \times 360 = 50,55 \text{ j}$$

$$x \square 51 \text{ j}$$

$$\cdot \quad 21 \quad 1 \quad 3 \quad (1)$$

: .2

: VAN

		12%		
1.200.000,00-	1.200.000,00-	1,000000	1.200.000-	0
753.571,43-	446.428,57	0,892857	500.000	1
354.974,49-	398.596,94	0,797194	500.000	2
915,63	355.890,12	0,711780	500.000	3
318.674,67	317.759,04	0,635518	500.000	4
602.388,10	283.713,43	0,567427	500.000	5

: DRCI

3	2	1	
355.890,12	398.596,94	446.428,57	
1.200.915,63	845.025,51	446.428,57	

: (1.200.000)

$$(1.200.915,63 - 845.025,51) \rightarrow 360 \text{ j}$$

$$(1.200.000 - 845.025,51) \rightarrow x$$

$$355.890,12 \rightarrow 360 \text{ j}$$

$$354.974,49 \rightarrow x$$

$$x = \frac{354.974,49}{355.890,12} \times 360 = 359,07 \text{ j}$$

$$x \approx 359 \text{ j}$$

$$. \quad 29 \quad 11 \quad 2 \quad (2)$$

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.DCRI VAN (2)

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2016	2015	2014	2013	2012	2011	2010	
360.000	360.000	360.000	360.000	360.000	360.000	/	
/	/	300.000	300.000	300.000	300.000	400.000	
360.000	360.000	60.000	60.000	60.000	60.000	- 400.000	

: .2.1

		10%			
400.000,00 -	400.000,00 -	1,000000	400.000 -	2010	0
345.454,55 -	54.545,45	0,909091	60.000	2011	1
295.867,77 -	49.586,78	0,826446	60.000	2012	2
250.788,88 -	45.078,89	0,751315	60.000	2013	3
209.808,07 -	40.980,81	0,683013	60.000	2014	4
13.723,60	223.531,68	0,620921	360.000	2015	5
216.934,22	203.210,61	0,564474	360.000	2016	6

: 2.

: 1.2

6	5	4	3	2	1	0	
2016	2015	2014	2013	2012	2011	2010	
300.000	300.000	300.000	300.000	300.000	300.000	/	
200.000	/	/	/	/	/	/	
/	/	/	/	/	/	140.000	
500.000	300.000	300.000	300.000	300.000	300.000	140.000	
150.000	150.000	150.000	150.000	150.000	150.000	350000	
350.000	150.000	150.000	150.000	150.000	150.000	336.000	

: 2.2

		10%			
336.000,00-	336.000,00-	1,000000	336.000-	2010	0
199.636,36-	136.363,64	0,909091	150.000	2011	1
75.669,42-	123.966,94	0,826446	150.000	2012	2
37.027,80	112.697,22	0,751315	150.000	2013	3
139.479,82	102.452,02	0,683013	150.000	2014	4
232.618,02	93.138,20	0,620921	150.000	2015	5
430.183,89	197.565,88	0,564474	350.000	2016	6

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:(6)

.1 :()

.1.1 :

		10%		
750.000,00 -	750.000,00 -	1,000000	750.000 -	0
604.545,45 -	145.454,55	0,909091	160.000	1
472.314,05 -	132.231,40	0,826446	160.000	2
156.761,83 -	315.552,22	0,751315	420.000	3
130.103,82	286.865,65	0,683013	420.000	4
390.890,77	260.786,96	0,620921	420.000	5
415.727,63	24.836,85	0,620921	40.000	5

.2.1 :

:(7500.000)

(880.103,82– 593.238,17) → 360 j

0.000 – 593.238,17) → x75(

→ 360 j 286.865,65

156.761,83 → x

$$x = \frac{156.761,83}{286.865,65} \times 360 = 196,76 \text{ j}$$

x □ 197 j

. 17 6 3 (1)

2. () :

1.1 :

		10%		
900.000 -	900.000 -	1,000000	900.000 -	0
581.818,18 -	318.181,82	0,909091	350.000	1
292.561,98 -	289.256,20	0,826446	350.000	2
29.601,80 -	262.960,18	0,751315	350.000	3
209.452,91	239.054,71	0,683013	350.000	4
426.775,37	217.322,46	0,620921	350.000	5

2.1 :

7500.000)

$$(1.109.452,91 - 870.398,20) \rightarrow 360 \text{ j}$$

$$(900.000 - 870.398,20) \rightarrow x$$

$$239.054,71 \rightarrow 360 \text{ j}$$

$$29.601,80 \rightarrow x$$

$$x = \frac{29601,80}{239054,71} \times 360 = 44,57 \text{ j}$$

$$x \square 45 \text{ j}$$

15 1 3 ()

:

.DCRI VAN ()