

Prueba

Cuadrados Medios

In [50]:

```
iteracionesRepetidas=[]
x0 = 5735
#x0=4440
digitos=4
simulaciones=True
for i in range(0,100):
    Xnx=[]
    xn2=[]
    i=[]
    long=[]
    ui=[]
    rn=[]
    iteracion=0
    NewXc=int(x0) * int(x0)
    NewXcs=str(NewXc)
    while(len(NewXcs) < 8):
        NewXcs="0"+NewXcs
    NewLongitud=len(NewXcs)
    NewUi=NewXcs[int((NewLongitud/2)-2):int((NewLongitud/2)+2)]
    Nn="1"
    print("semilla: ",x0,"semilla nueva:",NewUi)
    x0=int(NewUi)+33
    Xn=x0
    while simulaciones:
        Xc=int(Xn) * int(Xn)
        Xcs=str(Xc)
        while(len(Xcs) < 8):
            Xcs="0"+Xcs
        Longitud=len(Xcs)
        Ui=Xcs[int((Longitud/2)-2):int((Longitud/2)+2)]
        Nn="1"
        while(len(Nn)<(digitos+1)):
            Nn=Nn+"0"
        Rn=int(Ui)/int(Nn)
        i.append(iteracion)
        #print("iteraciones: ",iteracion)
        Xnx.append(Xn)
        xn2.append(Xcs)
        long.append(Longitud)
        ui.append(Ui)
        rn.append(Rn)
        Xn=Ui
        if Xn in Xnx:
            iteracionesRepetidas.append(iteracion);
            break;
        print("Xn: ",Xnx)
        iteracion=iteracion+1
    #data={'Iteracion':i,'Xn':Xnx,'Xn*Xn':xn2,'Longitud':long,'Ui':ui,'Rn':rn}
    #df=pd.DataFrame(data)
print("itR: ",iteracionesRepetidas)
print("leng ",len(iteracionesRepetidas))
```

semilla: 5735 semilla nueva: 8902

```
Xn: [8935]
Xn: [8935, '8342']
Xn: [8935, '8342', '5889']
Xn: [8935, '8342', '5889', '6803']
Xn: [8935, '8342', '5889', '6803', '2808']
Xn: [8935, '8342', '5889', '6803', '2808', '8848']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933', '4684']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933', '4684',
```

[illegible]

[illegible]

[illegible]

[illegible]

```
['0341', '0724', '2121', '4900', '0001', '9772', '4919', '1903', '0012', '1003', '7722', '0292',
'5892', '7156', '2083', '3388', '4785', '8962', '3174', '0742', '5505', '3050', '3025', '1506',
'2680', '1824', '3269', '6863', '1007', '0140', '0196', '0384']
```

Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933', '4684', '9398', '3224', '3941', '5314', '2385', '6882', '3619', '0971', '9428', '8871', '6946', '2469', '0959', '9196', '5664', '0808', '6528', '6147', '7856', '7167', '3658', '3809', '5084', '8470', '7409', '8932', '7806', '9336', '1608', '5856', '2927', '5673', '1829', '3452', '9163', '9605', '2560', '5536', '6472', '8867', '6236', '8876', '7833', '3558', '6593', '4676', '8649', '8052', '8347', '6724', '2121', '4986', '8601', '9772', '4919', '1965', '8612', '1665', '7722', '6292', '5892', '7156', '2083', '3388', '4785', '8962', '3174', '0742', '5505', '3050', '3025', '1506', '2680', '1824', '3269', '6863', '1007', '0140', '0196', '0384', '1474', '1726']

Xn:	[8935,	'8342',	'5889',	'6803',	'2808',	'8848',	'2871',	'2426',	'8854',	'3933',	'4684',	'9398',	'3224',	'3941',	'5314',	'2385',	'6882',	'3619',	'0971',	'9428',	'8871',	'6946',	'2469',	'0959',	'9196',	'5664',	'0808',	'6528',	'6147',	'7856',	'7167',	'3658',	'3809',	'5084',	'8470',	'7409',	'8932',	'7806',	'9336',	'1608',	'5856',	'2927',	'5673',	'1829',	'3452',	'9163',	'9605',	'2560',	'5536',	'6472',	'8867',	'6236',	'8876',	'7833',	'3558',	'6593',	'4676',	'8649',	'8052',	'8347',	'6724',	'2121',	'4986',	'8601',	'9772',	'4919',	'1965',	'8612',	'1665',	'7722',	'6292',	'5892',	'7156',	'2083',	'3388',	'4785',	'8962',	'3174',	'0742',	'5505',	'3050',	'3025',	'1506',	'2680',	'1824',	'3269',	'6863',	'1007',	'0140',	'0196',	'0384',	'1474',	'1726',	'9790',	'8441']
-----	--------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------

```
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933', '4684',
'9398', '3224', '3941', '5314', '2385', '6882', '3619', '0971', '9428', '8871', '6946', '2469',
'0959', '9196', '5664', '0808', '6528', '6147', '7856', '7167', '3658', '3809', '5084', '8470',
'7409', '8932', '7806', '9336', '1608', '5856', '2927', '5673', '1829', '3452', '9163', '9605',
'2560', '5536', '6472', '8867', '6236', '8876', '7833', '3558', '6593', '4676', '8649', '8052',
'8347', '6724', '2121', '4986', '8601', '9772', '4919', '1965', '8612', '1665', '7722', '6292',
'5892', '7156', '2083', '3388', '4785', '8962', '3174', '0742', '5505', '3050', '3025', '1506',
'2680', '1824', '3269', '8663', '1007', '0140', '0196', '0384', '1474', '1726', '9790', '8441',
'2504', '2700']
```

Xn:	[8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933', '4684', '9398', '3224', '3941', '5314', '2385', '6882', '3619', '0971', '9428', '8871', '6946', '2469', '0959', '9196', '5664', '0808', '6528', '6147', '7856', '7167', '3658', '3809', '5084', '8470', '7409', '8932', '7806', '9336', '1608', '5856', '2927', '5673', '1829', '3452', '9163', '9605', '2560', '5536', '6472', '8867', '6236', '8876', '7833', '3558', '6593', '4676', '8649', '8052', '8347', '6724', '2121', '4986', '8601', '9772', '4919', '1965', '8612', '1665', '7722', '6292', '5892', '7156', '2083', '3388', '4785', '8962', '3174', '0742', '5505', '3050', '3025', '1506', '2680', '1824', '3269', '6863', '1007', '0140', '0196', '0384', '1474', '1726', '9790', '8441', '2504', '2700', '2900', '4100']
-----	--

'5892', '1156', '2083', '3388', '4785', '8962', '3174', '0742', '5505', '3050', '3025', '1506',
'2680', '1824', '3269', '6863', '1007', '0140', '0196', '0384', '1474', '1726', '9790', '8441',
'2504', '2700', '2900', '4100', '8100']
Xn: [8935, '8342', '5889', '6803', '2808', '8848', '2871', '2426', '8854', '3933', '4684',
'9398', '3224', '3941', '5314', '2385', '6882', '3619', '0971', '9428', '8871', '6946', '2469',
'0959', '9196', '5664', '0808', '6528', '6147', '7856', '7167', '3658', '3809', '5084', '8470',
'7409', '8932', '7806', '9336', '1608', '5856', '2927', '5673', '1829', '3452', '9163', '9605',
'2560', '5536', '6472', '8867', '6236', '8876', '7833', '3558', '6593', '4676', '8649', '8052',
'8347', '6724', '2121', '4986', '8601', '9772', '4919', '1965', '8612', '1665', '7722', '6292',
'5892', '7156', '2083', '3388', '4785', '8962', '3174', '0742', '5505', '3050', '3025', '1506',
'2680', '1824', '3269', '6863', '1007', '0140', '0196', '0384', '1474', '1726', '9790', '8441',
'2504', '2700', '2900', '4100', '8100']
semilla: 8935 semilla nueva: 8342
Xn: [8375]
Xn: [8375, '1406']
Xn: [8375, '1406', '9768']
Xn: [8375, '1406', '9768', '4138']
Xn: [8375, '1406', '9768', '4138', '1230']
Xn: [8375, '1406', '9768', '4138', '1230', '5129']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066', '4003']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066', '4003', '0240']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066', '4003', '0240', '0576']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066', '4003', '0240', '0576', '3317']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066', '4003', '0240', '0576', '3317',
'0024']
Xn: [8375, '1406', '9768', '4138', '1230', '5129', '3066', '4003', '0240', '0576', '3317',
'0024', '0005']
semilla: 8375 semilla nueva: 1406
Xn: [1439]
Xn: [1439, '0707']
Xn: [1439, '0707', '4998']
Xn: [1439, '0707', '4998', '9800']
Xn: [1439, '0707', '4998', '9800', '0400']
Xn: [1439, '0707', '4998', '9800', '0400', '1600']
Xn: [1439, '0707', '4998', '9800', '0400', '1600', '5600']
Xn: [1439, '0707', '4998', '9800', '0400', '1600', '5600', '3600']
semilla: 1439 semilla nueva: 0707
Xn: [740]
Xn: [740, '5476']
Xn: [740, '5476', '9865']
Xn: [740, '5476', '9865', '3182']
Xn: [740, '5476', '9865', '3182', '1251']
Xn: [740, '5476', '9865', '3182', '1251', '5650']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997',
'9580']
Xn: [740, '5476', '9865', '3182', '1251', '5650', '9225', '1006', '0120', '0144', '0207', '0428',
'1831', '3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997',
'9580', '1406']

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]


```
'7220', '1264', '6466', '6661', '4637', '5017', '1702', '6966', '4230', '6623', '3906', '2366',
'5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166',
'0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388',
'2545', '4770', '7529', '6858', '0321', '1030', '0609', '3708']
```

Xn: [9669, '4895', '9610', '3521', '3974', '7926', '8214', '4697', '0618', '3819', '5847', '1874', '5118', '1939', '7597', '7144', '0367', '1346', '8117', '8856', '4287', '3783', '3110', '6721', '1718', '9515', '5352', '6439', '4607', '2244', '0355', '1260', '5876', '5273', '8045', '7220', '1284', '6486', '0681', '4637', '5017', '1702', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300']

Xn: [9669, '4895', '9610', '3521', '3974', '7926', '8214', '4697', '0618', '3819', '5847', '1874', '5118', '1939', '7597', '7144', '0367', '1346', '8117', '8856', '4287', '3783', '3110', '6721', '1718', '9515', '5352', '6439', '4607', '2244', '0355', '1260', '5876', '5273', '8045', '7220', '1284', '6486', '0681', '4637', '5017', '1702', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100']

```
Xn: [9669, '4895', '9610', '3521', '3974', '7926', '8214', '4697', '0618', '3819', '5847',  
1874', '5118', '1939', '7597', '7144', '0367', '1346', '8117', '8856', '4287', '3783', '3110',  
'6721', '1718', '9515', '5352', '6439', '4607', '2244', '0355', '1260', '5876', '5273', '8045',  
'7220', '1284', '6486', '0681', '4637', '5017', '1702', '8968', '4250', '0625', '3906', '2568',  
'5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166',  
'0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388',  
'2545', '4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100',  
'2100', '4100']
```

Xn: [4928]

```
Xn: [4928, '2851', '1282']
```

```
Xn: [4928, '2851', '1282', '6435', '4092']
```

Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131']

```
Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131', '0651', '4238']
```

```
Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131', '0651', '4238', '9606', '2752']
```

```
'5735']
```

Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131', '0651', '4238', '9606', '2752', '5735', '8902', '2456']

Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131', '0651', '4238', '9606', '2752', '5735', '8902', '2456', '0319', '1017']

Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131', '0651', '4238', '9606', '2752', '5735', '8902', '2456', '0319', '1017', '0342', '1169']

```
Xn: [4928, '2851', '1282', '6435', '4092', '7444', '4131', '0651', '4238', '9606', '2752',
```


[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]


```
Xn: [2084, '3430', '7649', '5072', '7251', '5770', '2929', '5790', '5241', '4680', '9024',  
'4325', '7056', '7871', '9526', '7446', '4429', '6160', '9456', '4159', '2972', '8327', '3389',  
'4853', '5516', '4262', '1646', '7093', '3106', '6472', '8867', '6236', '8876', '7833', '3558',  
'6593', '4676', '8649', '8052', '8347', '6724', '2121', '4986', '8601', '9772', '4919', '1965',  
'8612', '1665', '7722', '6292', '5892', '7156', '2083', '3388', '4785', '8962', '3174', '0742',  
'5505', '3050', '3025', '1506', '2680', '1824', '3269', '6863', '1007', '0140', '0196', '0384',
```


[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Xn:	[	'5845'	,	'1640'	,	'6896'	,	'5548'	,	'7803'	,	'8868'	,	'6414'	,	'1393'	,	'9404'	,	'4352'	,	'9399'	,		
		'3412'	,	'6417'	,	'1778'	,	'1612'	,	'5985'	,	'8202'	,	'2728'	,	'4419'	,	'5275'	,	'8256'	,	'1615'	,	'6082'	,
		'9907'	,	'1486'	,	'2081'	,	'3305'	,	'9230'	,	'1929'	,	'7210'	,	'9841'	,	'8452'	,	'4363'	,	'0357'	,	'1274'	,
		'6230'	,	'8129'	,	'0806'	,	'6496'	,	'1980'	,	'9204'	,	'7136'	,	'9224'	,	'0821'	,	'6740'	,	'4276'	,	'2841'	,
		'0712'	,	'5069'	,	'6947'	,	'2608'	,	'8016'	,	'2562'	,	'5638'	,	'7870'	,	'9369'	,	'7781'	,	'5439'	,	'5827'	,
		'9539'	,	'9925'	,	'5056'	,	'5631'	,	'7081'	,	'1405']													
Xn:	[	'5845'	,	'1640'	,	'6896'	,	'5548'	,	'7803'	,	'8868'	,	'6414'	,	'1393'	,	'9404'	,	'4352'	,	'9399'	,		
		'3412'	,	'6417'	,	'1778'	,	'1612'	,	'5985'	,	'8202'	,	'2728'	,	'4419'	,	'5275'	,	'8256'	,	'1615'	,	'6082'	,
		'9907'	,	'1486'	,	'2081'	,	'3305'	,	'9230'	,	'1929'	,	'7210'	,	'9841'	,	'8452'	,	'4363'	,	'0357'	,	'1274'	,
		'6230'	,	'8129'	,	'0806'	,	'6496'	,	'1980'	,	'9204'	,	'7136'	,	'9224'	,	'0821'	,	'6740'	,	'4276'	,	'2841'	,
		'0712'	,	'5069'	,	'6947'	,	'2608'	,	'8016'	,	'2562'	,	'5638'	,	'7870'	,	'9369'	,	'7781'	,	'5439'	,	'5827'	,
		'9539'	,	'9925'	,	'5056'	,	'5631'	,	'7081'	,	'1405'	,	'9740']											
Xn:	[	'5845'	,	'1640'	,	'6896'	,	'5548'	,	'7803'	,	'8868'	,	'6414'	,	'1393'	,	'9404'	,	'4352'	,	'9399'	,		
		'3412'	,	'6417'	,	'1778'	,	'1612'	,	'5985'	,	'8202'	,	'2728'	,	'4419'	,	'5275'	,	'8256'	,	'1615'	,	'6082'	,
		'9907'	,	'1486'	,	'2081'	,	'3305'	,	'9230'	,	'1929'	,	'7210'	,	'9841'	,	'8452'	,	'4363'	,	'0357'	,	'1274'	,
		'6230'	,	'8129'	,	'0806'	,	'6496'	,	'1980'	,	'9204'	,	'7136'	,	'9224'	,	'0821'	,	'6740'	,	'4276'	,	'2841'	,
		'0712'	,	'5069'	,	'6947'	,	'2608'	,	'8016'	,	'2562'	,	'5638'	,	'7870'	,	'9369'	,	'7781'	,	'5439'	,	'5827'	,
		'9539'	,	'9925'	,	'5056'	,	'5631'	,	'7081'	,	'1405'	,	'9740']											
Xn:	[	'5845'	,	'1640'	,	'6896'	,	'5548'	,	'7803'	,	'8868'	,	'6414'	,	'1393'	,	'9404'	,	'4352'	,	'9399'	,		
		'3412'	,	'6417'	,	'1778'	,	'1612'	,	'5985'	,	'8202'	,	'2728'	,	'4419'	,	'5275'	,	'8256'	,	'1615'	,	'6082'	,
		'9907'	,	'1486'	,	'2081'	,	'3305'	,	'9230'	,	'1929'	,	'7210'	,	'9841'	,	'8452'	,	'4363'	,	'0357'	,	'1274'	,
		'6230'	,	'8129'	,	'0806'	,	'6496'	,	'1980'	,	'9204'	,	'7136'	,	'9224'	,	'0821'	,	'6740'	,	'4276'	,	'2841'	,
		'0712'	,	'5069'	,	'6947'	,	'2608'	,	'8016'	,	'2562'	,	'5638'	,	'7870'	,	'9369'	,	'7781'	,	'5439'	,	'5827'	,
		'9539'	,	'9925'	,	'5056'	,	'5631'	,	'7081'	,	'1405'	,	'9740']											
Xn:	[	'5845'	,	'1640'	,	'6896'	,	'5548'	,	'7803'	,	'8868'	,	'6414'	,	'1393'	,	'9404'	,	'4352'	,	'9399'	,		
		'3412'	,	'6417'	,	'1778'	,																		

[illegible]

'012',	'5069',	'6947',	'2608',	'8016',	'2562',	'5638',	'7870',	'9369',	'7781',	'5439',	'5827',
'9539',	'9925',	'5056',	'5631',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',	'1354',	'8333',	'4388',	'2545',
'4770',	'7529',	'6858',	'0321',								
Xn:	[5845,	'1640',	'6896',	'5548',	'7803',	'8868',	'6414',	'1393',	'9404',	'4352',	'9399',
'3412',	'6417',	'1778',	'1612',	'5985',	'8202',	'2728',	'4419',	'5275',	'8256',	'1615',	'6082',
'9907',	'1486',	'2081',	'3305',	'9230',	'1929',	'7210',	'9841',	'8452',	'4363',	'0357',	'1274',
'6230',	'8129',	'0806',	'6496',	'1980',	'9204',	'7136',	'9224',	'0821',	'6740',	'4276',	'2841',
'0712',	'5069',	'6947',	'2608',	'8016',	'2562',	'5638',	'7870',	'9369',	'7781',	'5439',	'5827',
'9539',	'9925',	'5056',	'5631',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',	'1354',	'8333',	'4388',	'2545',
'4770',	'7529',	'6858',	'0321',	'1030',							
Xn:	[5845,	'1640',	'6896',	'5548',	'7803',	'8868',	'6414',	'1393',	'9404',	'4352',	'9399',
'3412',	'6417',	'1778',	'1612',	'5985',	'8202',	'2728',	'4419',	'5275',	'8256',	'1615',	'6082',
'9907',	'1486',	'2081',	'3305',	'9230',	'1929',	'7210',	'9841',	'8452',	'4363',	'0357',	'1274',
'6230',	'8129',	'0806',	'6496',	'1980',	'9204',	'7136',	'9224',	'0821',	'6740',	'4276',	'2841',
'0712',	'5069',	'6947',	'2608',	'8016',	'2562',	'5638',	'7870',	'9369',	'7781',	'5439',	'5827',
'9539',	'9925',	'5056',	'5631',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',	'1354',	'8333',	'4388',	'2545',
'4770',	'7529',	'6858',	'0321',	'1030',	'0609',						
Xn:	[5845,	'1640',	'6896',	'5548',	'7803',	'8868',	'6414',	'1393',	'9404',	'4352',	'9399',
'3412',	'6417',	'1778',	'1612',	'5985',	'8202',	'2728',	'4419',	'5275',	'8256',	'1615',	'6082',
'9907',	'1486',	'2081',	'3305',	'9230',	'1929',	'7210',	'9841',	'8452',	'4363',	'0357',	'1274',
'6230',	'8129',	'0806',	'6496',	'1980',	'9204',	'7136',	'9224',	'0821',	'6740',	'4276',	'2841',
'0712',	'5069',	'6947',	'2608',	'8016',	'2562',	'5638',	'7870',	'9369',	'7781',	'5439',	'5827',
'9539',	'9925',	'5056',	'5631',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',	'1354',	'8333',	'4388',	'2545',
'4770',	'7529',	'6858',	'0321',	'1030',	'0609',	'3708',					
Xn:	[5845,	'1640',	'6896',	'5548',	'7803',	'8868',	'6414',	'1393',	'9404',	'4352',	'9399',
'3412',	'6417',	'1778',	'1612',	'5985',	'8202',	'2728',	'4419',	'5275',	'8256',	'1615',	'6082',
'9907',	'1486',	'2081',	'3305',	'9230',	'1929',	'7210',	'9841',	'8452',	'4363',	'0357',	'1274',
'6230',	'8129',	'0806',	'6496',	'1980',	'9204',	'7136',	'9224',	'0821',	'6740',	'4276',	'2841',
'0712',	'5069',	'6947',	'2608',	'8016',	'2562',	'5638',	'7870',	'9369',	'7781',	'5439',	'5827',
'9539',	'9925',	'5056',	'5631',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9						

```
semilla: 5845 semilla nueva: 1640
```

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

5212	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'	'7908'	'5364'	'7724'	'6601'	'5732'	'8558'	'2393'	'7264'	'7656'	'6143'	'7364'
'2284'	'2166'	'6915'	'8172'	'7815'	'0742'	'5505'	'3050'	'3025'			
Xn: [9713, '3423', '7169', '3945', '5630', '6969', '5669', '1375', '8906', '3168', '0362',											
'1310'	'7161'	'2799'	'8344'	'6223'	'7257'	'6640'	'0896'	'8028'	'4487'	'1331'	'7715'
'5212'	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'	'7908'	'5364'	'7724'	'6601'	'5732'	'8558'	'2393'	'7264'	'7656'	'6143'	'7364'
'2284'	'2166'	'6915'	'8172'	'7815'	'0742'	'5505'	'3050'	'3025'	'1506'		
Xn: [9713, '3423', '7169', '3945', '5630', '6969', '5669', '1375', '8906', '3168', '0362',											
'1310'	'7161'	'2799'	'8344'	'6223'	'7257'	'6640'	'0896'	'8028'	'4487'	'1331'	'7715'
'5212'	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'	'7908'	'5364'	'7724'	'6601'	'5732'	'8558'	'2393'	'7264'	'7656'	'6143'	'7364'
'2284'	'2166'	'6915'	'8172'	'7815'	'0742'	'5505'	'3050'	'3025'	'1506'	'2680'	
Xn: [9713, '3423', '7169', '3945', '5630', '6969', '5669', '1375', '8906', '3168', '0362',											
'1310'	'7161'	'2799'	'8344'	'6223'	'7257'	'6640'	'0896'	'8028'	'4487'	'1331'	'7715'
'5212'	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'	'7908'	'5364'	'7724'	'6601'	'5732'	'8558'	'2393'	'7264'	'7656'	'6143'	'7364'
'2284'	'2166'	'6915'	'8172'	'7815'	'0742'	'5505'	'3050'	'3025'	'1506'	'2680'	'1824'
Xn: [9713, '3423', '7169', '3945', '5630', '6969', '5669', '1375', '8906', '3168', '0362',											
'1310'	'7161'	'2799'	'8344'	'6223'	'7257'	'6640'	'0896'	'8028'	'4487'	'1331'	'7715'
'5212'	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'	'7908'	'5364'	'7724'	'6601'	'5732'	'8558'	'2393'	'7264'	'7656'	'6143'	'7364'
'2284'	'2166'	'6915'	'8172'	'7815'	'0742'	'5505'	'3050'	'3025'	'1506'	'2680'	'1824'
'3269'											
Xn: [9713, '3423', '7169', '3945', '5630', '6969', '5669', '1375', '8906', '3168', '0362',											
'1310'	'7161'	'2799'	'8344'	'6223'	'7257'	'6640'	'0896'	'8028'	'4487'	'1331'	'7715'
'5212'	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'	'7908'	'5364'	'7724'	'6601'	'5732'	'8558'	'2393'	'7264'	'7656'	'6143'	'7364'
'2284'	'2166'	'6915'	'8172'	'7815'	'0742'	'5505'	'3050'	'3025'	'1506'	'2680'	'1824'
'3269'											
Xn: [9713, '3423', '7169', '3945', '5630', '6969', '5669', '1375', '8906', '3168', '0362',											
'1310'	'7161'	'2799'	'8344'	'6223'	'7257'	'6640'	'0896'	'8028'	'4487'	'1331'	'7715'
'5212'	'1649'	'7192'	'7248'	'5335'	'4622'	'3628'	'1623'	'6341'	'2082'	'3347'	'2024'
'0965'	'9312'	'7133'	'8796'	'3696'	'6604'	'6128'	'5523'	'5035'	'3512'	'3341'	'1622'
'6308'											

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

'2641',	'9748',	'0235',	'0552',	'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',
'0955',	'9120',	'1744',	'0415',	'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',
'8840',	'1456',	'1199',	'4376',	'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',
'0625',	'3906',	'2568',	'5946',	'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',
'2729',	'4474',	'0166',	'0275',	'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',]
Xn:	[4234,	'9267',	'8772',	'9479',	'8514',	'4881',	'8241',	'9140',	'5396',	'1168',	'3642',
'2641',	'9748',	'0235',	'0552',	'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',
'0955',	'9120',	'1744',	'0415',	'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',
'8840',	'1456',	'1199',	'4376',	'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',
'0625',	'3906',	'2568',	'5946',	'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',
'2729',	'4474',	'0166',	'0275',	'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368']
Xn:	[4234,	'9267',	'8772',	'9479',	'8514',	'4881',	'8241',	'9140',	'5396',	'1168',	'3642',
'2641',	'9748',	'0235',	'0552',	'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',
'0955',	'9120',	'1744',	'0415',	'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',
'8840',	'1456',	'1199',	'4376',	'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',
'0625',	'3906',	'2568',	'5946',	'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',
'2729',	'4474',	'0166',	'0275',	'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',
'1354']											
Xn:	[4234,	'9267',	'8772',	'9479',	'8514',	'4881',	'8241',	'9140',	'5396',	'1168',	'3642',
'2641',	'9748',	'0235',	'0552',	'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',
'0955',	'9120',	'1744',	'0415',	'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',
'8840',	'1456',	'1199',	'4376',	'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',
'0625',	'3906',	'2568',	'5946',	'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',
'2729',	'4474',	'0166',	'0275',	'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',
'1354']											
Xn:	[4234,	'9267',	'8772',	'9479',	'8514',	'4881',	'8241',	'9140',	'5396',	'1168',	'3642',
'2641',	'9748',	'0235',	'0552',	'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',
'0955',	'9120',	'1744',	'0415',	'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',
'8840',	'1456',	'1199',	'4376',	'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',
'0625',	'3906',	'2568',	'5946',	'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',
'2729',	'4474',	'0166',	'0275',	'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',
'1354',	'8333']										
Xn:	[4234,	'9267',	'8772',	'9479',	'8514',	'4881',	'8241',	'9140',	'5396',	'1168',	'3642',
'2641',	'9748',	'0235',	'0552',	'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',
'0955',	'9120',	'1744',	'0415',	'1722',	'9652',	'1611',	'5953',	'4382',	'2019',</		

```

'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609']
Xn: [4234,'9267','8772','9479','8514','4881','8241','9140','5396','1168','3642',
'2641','9748','0235','0552','3047','2842','0769','5913','9635','8332','4222','8252',
'0955','9120','1744','0415','1722','9652','1611','5953','4382','2019','0763','5821',
'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609','3708']
Xn: [4234,'9267','8772','9479','8514','4881','8241','9140','5396','1168','3642',
'2641','9748','0235','0552','3047','2842','0769','5913','9635','8332','4222','8252',
'0955','9120','1744','0415','1722','9652','1611','5953','4382','2019','0763','5821',
'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609','3708','7492']
Xn: [4234,'9267','8772','9479','8514','4881','8241','9140','5396','1168','3642',
'2641','9748','0235','0552','3047','2842','0769','5913','9635','8332','4222','8252',
'0955','9120','1744','0415','1722','9652','1611','5953','4382','2019','0763','5821',
'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609','3708','7492',
'1300']
Xn: [4234,'9267','8772','9479','8514','4881','8241','9140','5396','1168','3642',
'2641','9748','0235','0552','3047','2842','0769','5913','9635','8332','4222','8252',
'0955','9120','1744','0415','1722','9652','1611','5953','4382','2019','0763','5821',
'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609','3708','7492',
'1300','6900']
Xn: [4234,'9267','8772','9479','8514','4881','8241','9140','5396','1168','3642',
'2641','9748','0235','0552','3047','2842','0769','5913','9635','8332','4222','8252',
'0955','9120','1744','0415','1722','9652','1611','5953','4382','2019','0763','5821',
'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609','3708','7492',
'1300','6900','6100','2100']
Xn: [4234,'9267','8772','9479','8514','4881','8241','9140','5396','1168','3642',
'2641','9748','0235','0552','3047','2842','0769','5913','9635','8332','4222','8252',
'0955','9120','1744','0415','1722','9652','1611','5953','4382','2019','0763','5821',
'8840','1456','1199','4376','1493','2290','2441','9584','8530','7609','8968','4250',
'0625','3906','2568','5946','3549','5954','4501','2590','7081','1405','9740','8676',
'2729','4474','0166','0275','0756','5715','6612','7185','6242','9625','6406','0368',
'1354','8333','4388','2545','4770','7529','6858','0321','1030','0609','3708','7492',
'1300','6900','6100','2100','4100']
semilla: 4234 semilla nueva: 9267
Xn: [9300]
Xn: [9300,'4900']
semilla: 9300 semilla nueva: 4900
Xn: [4933]
Xn: [4933,'3344']
Xn: [4933,'3344','1823']
Xn: [4933,'3344','1823','3233']
Xn: [4933,'3344','1823','3233','4522']
Xn: [4933,'3344','1823','3233','4522','4484']
Xn: [4933,'3344','1823','3233','4522','4484','1062']
Xn: [4933,'3344','1823','3233','4522','4484','1062','1278']
Xn: [4933,'3344','1823','3233','4522','4484','1062','1278','6332']
Xn: [4933,'3344','1823','3233','4522','4484','1062','1278','6332','0942']
Xn: [4933,'3344','1823','3233','4522','4484','1062','1278','6332','0942','8873']
Xn: [4933,'3344','1823','3233','4522','4484','1062','1278','6332','0942','8873',
'7301']
Xn: [4933,'3344','1823','3233','4522','4484','1062','1278','6332','0942','8873',
'7301','3046']

```

[illegible]

[illegible]

1532, 1572, 1594, 1714, 1720, 1750, 1771, 2004, 2100, 2500]
Xn: [4933, '3344', '1823', '3233', '4522', '4484', '1062', '1278', '6332', '0942', '8873',
'7301', '3046', '2781', '7339', '8609', '1148', '3179', '1060', '1236', '5276', '8361', '9063',
'1379', '9016', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580', '7764',
'2796', '8176', '8469', '7239', '4031', '2489', '1951', '8064', '0280', '0784', '6146', '7733',
'7992', '8720', '0384', '1474', '1726', '9790', '8441', '2504', '2700', '2900', '4100']
Xn: [4933, '3344', '1823', '3233', '4522', '4484', '1062', '1278', '6332', '0942', '8873',
'7301', '3046', '2781', '7339', '8609', '1148', '3179', '1060', '1236', '5276', '8361', '9063',
'1379', '9016', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580', '7764',
'2796', '8176', '8469', '7239', '4031', '2489', '1951', '8064', '0280', '0784', '6146', '7733',
'7992', '8720', '0384', '1474', '1726', '9790', '8441', '2504', '2700', '2900', '4100', '8100']
Xn: [4933, '3344', '1823', '3233', '4522', '4484', '1062', '1278', '6332', '0942', '8873',
'7301', '3046', '2781', '7339', '8609', '1148', '3179', '1060', '1236', '5276', '8361', '9063',
'1379', '9016', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580', '7764',
'2796', '8176', '8469', '7239', '4031', '2489', '1951', '8064', '0280', '0784', '6146', '7733',
'7992', '8720', '0384', '1474', '1726', '9790', '8441', '2504', '2700', '2900', '4100', '8100',
'6100']
semilla: 4933 semilla nueva: 3344
Xn: [3377]
Xn: [3377, '4041']
Xn: [3377, '4041', '3296']
Xn: [3377, '4041', '3296', '8636']
Xn: [3377, '4041', '3296', '8636', '5804']
Xn: [3377, '4041', '3296', '8636', '5804', '6864']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025', '2006']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025', '2006', '0240']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025', '2006', '0240', '0576']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025', '2006', '0240', '0576', '3317']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025', '2006', '0240', '0576', '3317', '0024']
Xn: [3377, '4041', '3296', '8636', '5804', '6864', '1144', '3087', '5295', '0370', '1369',
'8741', '4050', '4025', '2006', '0240', '0576', '3317', '0024', '0005']
semilla: 3377 semilla nueva: 4041
Xn: [4074]
Xn: [4074, '5974']
Xn: [4074, '5974', '6886']
Xn: [4074, '5974', '6886', '4169']
Xn: [4074, '5974', '6886', '4169', '3805']
Xn: [4074, '5974', '6886', '4169', '3805', '4780']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283', '1740']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283', '1740', '0276']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283', '1740', '0276', '0761']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283', '1740', '0276', '0761', '5791']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283', '1740', '0276', '0761', '5791', '5356']
Xn: [4074, '5974', '6886', '4169', '3805', '4780', '8484', '9782', '6875', '2656', '0543',
'2948', '6907', '7066', '9283', '1740', '0276', '0761', '5791', '5356', '5791']

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

'6486', '0681', '4637', '5017', '1702', '8968', '4250', '0625', '3906', '2568', '5946', '3549',
'5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756',
'5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770',
'7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900']
Xn: [7654, '5837', '0705', '4970', '7009', '1260', '5876', '5273', '8045', '7220', '1284',
'6486', '0681', '4637', '5017', '1702', '8968', '4250', '0625', '3906', '2568', '5946', '3549',
'5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756',
'5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770',
'7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100']
Xn: [7654, '5837', '0705', '4970', '7009', '1260', '5876', '5273', '8045', '7220', '1284',
'6486', '0681', '4637', '5017', '1702', '8968', '4250', '0625', '3906', '2568', '5946', '3549',
'5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756',
'5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770',
'7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100']
semilla: 7654 semilla nueva: 5837
Xn: [5870]
Xn: [5870, '4569']
Xn: [5870, '4569', '8757']
Xn: [5870, '4569', '8757', '6850']
Xn: [5870, '4569', '8757', '6850', '9225']
Xn: [5870, '4569', '8757', '6850', '9225', '1006']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580',
'7764']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580',
'7764', '2796']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580',
'7764', '2796', '8176']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580',
'7764', '2796', '8176', '8469']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580',
'7764', '2796', '8176', '8469', '7239']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',
'3525', '4256', '1135', '2882', '3059', '3574', '7734', '8147', '3736', '9576', '6997', '9580',
'7764', '2796', '8176', '8469', '7239', '4031']
Xn: [5870, '4569', '8757', '6850', '9225', '1006', '0120', '0144', '0207', '0428', '1831',

[illegible]

[illegible]

[illegible]

'0620'	'3844'	'7763'	'2641'	'9748'	'0235'	'0552'	'3047'	'2842'	'0769'	'5913'	'9635'
'8332'	'4222'	'8252'	'0955'	'9120'	'1744'	'0415'	'1722'	'9652'	'1611'	'5953'	'4382'
'2019'	'0763'	'5821'	'8840'	'1456'	'1199'	'4376'	'1493'	'2290'	'2441'	'9584'	'8530'
'7609'	'8968'	'4250'	'0625'	'3906'	'2568'	'5946'	'3549'	'5954'	'4501'	'2590'	'7081'
'1405'	'9740'	'8676'	'2729'	'4474'	'0166'	'0275'	'0756'	'5715'	'6612'	'7185'	'6242'
'9625'	'6406'	'0368'	'1354'	'8333']							

```
Xn: [1817, '3014', '0841', '7072', '0131', '0171', '0292', '0852', '7259', '6930', '0249',  
'0620', '3844', '7763', '2641', '9748', '0235', '0552', '3047', '2842', '0769', '5913', '9635',  
'8332', '4222', '8252', '0955', '9120', '1744', '0415', '1722', '9652', '1611', '5953', '4382',  
'2019', '0763', '5821', '8840', '1456', '1199', '4376', '1493', '2290', '2441', '9584', '8530',  
'7609', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',  
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',  
'9625', '6406', '0368', '1354', '8333', '4388', '2545']
```

```
Xn: [1817, '3014', '0841', '7072', '0131', '0171', '0292', '0852', '7259', '6930', '0249',  
'0620', '3844', '7763', '2641', '9748', '0235', '0552', '3047', '2842', '0769', '5913', '9635',  
'8332', '4222', '8252', '0955', '9120', '1744', '0415', '1722', '9652', '1611', '5953', '4382',  
'2019', '0763', '5821', '8840', '1456', '1199', '4376', '1493', '2290', '2441', '9584', '8530',  
'7609', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',  
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',  
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529']
```

Xn: [1817, '3014', '0841', '7072', '0131', '0171', '0292', '0852', '7259', '6930', '0249', '0620', '3844', '7763', '2641', '9748', '0235', '0552', '3047', '2842', '0769', '5913', '9635', '8332', '4222', '8252', '0955', '9120', '1744', '0415', '1722', '9652', '1611', '5953', '4382', '2019', '0763', '5821', '8840', '1456', '1199', '4376', '1493', '2290', '2441', '9584', '8530', '7609', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321']

Xn: [1817, '3014', '0841', '7072', '0131', '0171', '0292', '0852', '7259', '6930', '0249', '0620', '3844', '7763', '2641', '9748', '0235', '0552', '3047', '2842', '0769', '5913', '9635', '8332', '4222', '8252', '0955', '9120', '1744', '0415', '1722', '9652', '1611', '5953', '4382', '2019', '0763', '5821', '8840', '1456', '1199', '4376', '1493', '2290', '2441', '9584', '8530', '7609', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030', '0609']

Xn: [1817, '3014', '0841', '7072', '0131', '0171', '0292', '0852', '7259', '6930', '0249', '0620', '3844', '7763', '2641', '9748', '0235', '0552', '3047', '2842', '0769', '5913', '9635', '8332', '4222', '8252', '0955', '9120', '1744', '0415', '1722', '9652', '1611', '5953', '4382', '2019', '0763', '5821', '8840', '1456', '1199', '4376', '1493', '2290', '2441', '9584', '8530', '7609', '8968', '4250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242']


```
1100, '0710', '0070', '2720', '1171', '0100', '0270', '0700', '0710', '0012', '1100', '0212',  
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',  
'0609', '3708', '7492']
```

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

10700 141471 110761 100451 101001 100441 101001 100061

[illegible]

[illegible]

[illegible]

[illegible]

'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',	'0955',	'9120',	'1744',	'0415',
'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',	'8840',	'1456',	'1199',	'4376',
'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',	'0625',	'3906',	'2568',	'5946',
'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',]			
Xn: [715, '5112', '1325', '7556', '0931', '8667', '1168', '3642', '2641', '9748', '0235', '0552',											
'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',	'0955',	'9120',	'1744',	'0415',
'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',	'8840',	'1456',	'1199',	'4376',
'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',	'0625',	'3906',	'2568',	'5946',
'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',]			
Xn: [715, '5112', '1325', '7556', '0931', '8667', '1168', '3642', '2641', '9748', '0235', '0552',											
'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',	'0955',	'9120',	'1744',	'0415',
'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',	'8840',	'1456',	'1199',	'4376',
'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',	'0625',	'3906',	'2568',	'5946',
'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',]			
Xn: [715, '5112', '1325', '7556', '0931', '8667', '1168', '3642', '2641', '9748', '0235', '0552',											
'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',	'0955',	'9120',	'1744',	'0415',
'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',	'8840',	'1456',	'1199',	'4376',
'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',	'0625',	'3906',	'2568',	'5946',
'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',]			
Xn: [715, '5112', '1325', '7556', '0931', '8667', '1168', '3642', '2641', '9748', '0235', '0552',											
'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',	'0955',	'9120',	'1744',	'0415',
'1722',	'9652',	'1611',	'5953',	'4382',	'2019',	'0763',	'5821',	'8840',	'1456',	'1199',	'4376',
'1493',	'2290',	'2441',	'9584',	'8530',	'7609',	'8968',	'4250',	'0625',	'3906',	'2568',	'5946',
'3549',	'5954',	'4501',	'2590',	'7081',	'1405',	'9740',	'8676',	'2729',	'4474',	'0166',	'0275',
'0756',	'5715',	'6612',	'7185',	'6242',	'9625',	'6406',	'0368',]			
Xn: [715, '5112', '1325', '7556', '0931', '8667', '1168', '3642', '2641', '9748', '0235', '0552',											
'3047',	'2842',	'0769',	'5913',	'9635',	'8332',	'4222',	'8252',	'0955',			

[illegible]

[illegible]

[illegible]

0730', '0715', '0012', '7100', '0212', '0020', '0000', '0000', '1004', '0000', '1000', '2010',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100']
Xn: [8122, '9668', '4702', '1088', '1837', '3745', '0250', '0625', '3906', '2568', '5946',
'3549', '5954', '4501', '2590', '7081', '1405', '9740', '8676', '2729', '4474', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100',
'4100']
semilla: 8122 semilla nueva: 9668
Xn: [9701]
Xn: [9701, '1094']
Xn: [9701, '1094', '1968']
Xn: [9701, '1094', '1968', '8730']
Xn: [9701, '1094', '1968', '8730', '2129']
Xn: [9701, '1094', '1968', '8730', '2129', '5326']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264', '2936']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264', '2936', '6200']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264', '2936', '6200',
'4400']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264', '2936', '6200',
'4400', '3600']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264', '2936', '6200',
'4400', '3600', '9600']
Xn: [9701, '1094', '1968', '8730', '2129', '5326', '3662', '4102', '8264', '2936', '6200',
'4400', '3600', '9600', '1600']
semilla: 9701 semilla nueva: 1094
Xn: [1127]
Xn: [1127, '2701']
Xn: [1127, '2701', '2954']
Xn: [1127, '2701', '2954', '7261']
Xn: [1127, '2701', '2954', '7261', '7221']
Xn: [1127, '2701', '2954', '7261', '7221', '1428']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622', '6308']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622', '6308',
'7908']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622', '6308',
'7908', '5364']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622', '6308',
'7908', '5364', '7724']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622', '6308',
'7908', '5364', '7724', '6601']
Xn: [1127, '2701', '2954', '7261', '7221', '1428', '0391', '1528', '3347', '2024', '0965',
'9312', '7133', '8796', '3696', '6604', '6128', '5523', '5035', '3512', '3341', '1622', '6308',
'7908', '5364', '7724', '6601', '5732']

1500 , 5504 , 1124 , 0001 , 5152]

'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708', '7492']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708', '7492', '1300']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708', '7492', '1300', '6900']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708', '7492', '1300', '6900', '6100']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708', '7492', '1300', '6900', '6100', '2100']
Xn: [3745, '0250', '0625', '3906', '2568', '5946', '3549', '5954', '4501', '2590', '7081',
'1405', '9740', '8676', '2729', '4474', '0166', '0275', '0756', '5715', '6612', '7185', '6242',
'9625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858', '0321', '1030',
'0609', '3708', '7492', '1300', '6900', '6100', '4100']
semilla: 3745 semilla nueva: 0250
Xn: [283]
Xn: [283, '0800']
Xn: [283, '0800', '6400']
Xn: [283, '0800', '6400', '9600']
Xn: [283, '0800', '6400', '9600', '1600']
Xn: [283, '0800', '6400', '9600', '1600', '5600']
semilla: 283 semilla nueva: 0800
Xn: [833]
Xn: [833, '6938']
Xn: [833, '6938', '1358']
Xn: [833, '6938', '1358', '8441']
Xn: [833, '6938', '1358', '8441', '2504']
Xn: [833, '6938', '1358', '8441', '2504', '2700']
Xn: [833, '6938', '1358', '8441', '2504', '2700', '2900']
Xn: [833, '6938', '1358', '8441', '2504', '2700', '2900', '4100']
Xn: [833, '6938', '1358', '8441', '2504', '2700', '2900', '4100', '8100']
Xn: [833, '6938', '1358', '8441', '2504', '2700', '2900', '4100', '8100', '6100']
semilla: 833 semilla nueva: 6938
Xn: [6971]
Xn: [6971, '5948']
Xn: [6971, '5948', '3787']
Xn: [6971, '5948', '3787', '3413']
Xn: [6971, '5948', '3787', '3413', '6485']
Xn: [6971, '5948', '3787', '3413', '6485', '0552']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332', '4222']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332', '4222', '8252']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332', '4222', '8252', '0955']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332', '4222', '8252', '0955', '9120']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332', '4222', '8252', '0955', '9120', '1744']
Xn: [6971, '5948', '3787', '3413', '6485', '0552', '3047', '2842', '0769', '5913', '9635',
'8332', '4222', '8252', '0955', '9120', '1744', '0415']

[illegible]

[illegible]

[illegible]

2004, '2100']
Xn: [1588, '5217', '2170', '7089', '2539', '4465', '9362', '6470', '8609', '1148', '3179',
'1060', '1236', '5276', '8361', '9063', '1379', '9016', '2882', '3059', '3574', '7734', '8147',
'3736', '9576', '6997', '9580', '7764', '2796', '8176', '8469', '7239', '4031', '2489', '1951',
'8064', '0280', '0784', '6146', '7733', '7992', '8720', '0384', '1474', '1726', '9790', '8441',
'2504', '2700', '2900']
Xn: [1588, '5217', '2170', '7089', '2539', '4465', '9362', '6470', '8609', '1148', '3179',
'1060', '1236', '5276', '8361', '9063', '1379', '9016', '2882', '3059', '3574', '7734', '8147',
'3736', '9576', '6997', '9580', '7764', '2796', '8176', '8469', '7239', '4031', '2489', '1951',
'8064', '0280', '0784', '6146', '7733', '7992', '8720', '0384', '1474', '1726', '9790', '8441',
'2504', '2700', '2900', '4100']
Xn: [1588, '5217', '2170', '7089', '2539', '4465', '9362', '6470', '8609', '1148', '3179',
'1060', '1236', '5276', '8361', '9063', '1379', '9016', '2882', '3059', '3574', '7734', '8147',
'3736', '9576', '6997', '9580', '7764', '2796', '8176', '8469', '7239', '4031', '2489', '1951',
'8064', '0280', '0784', '6146', '7733', '7992', '8720', '0384', '1474', '1726', '9790', '8441',
'2504', '2700', '2900', '4100', '8100']
Xn: [1588, '5217', '2170', '7089', '2539', '4465', '9362', '6470', '8609', '1148', '3179',
'1060', '1236', '5276', '8361', '9063', '1379', '9016', '2882', '3059', '3574', '7734', '8147',
'3736', '9576', '6997', '9580', '7764', '2796', '8176', '8469', '7239', '4031', '2489', '1951',
'8064', '0280', '0784', '6146', '7733', '7992', '8720', '0384', '1474', '1726', '9790', '8441',
'2504', '2700', '2900', '4100', '8100', '6100']
semilla: 1588 semilla nueva: 5217
Xn: [5250]
Xn: [5250, '5625']
Xn: [5250, '5625', '6406']
Xn: [5250, '5625', '6406', '0368']
Xn: [5250, '5625', '6406', '0368', '1354']
Xn: [5250, '5625', '6406', '0368', '1354', '8333']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708', '7492']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708', '7492', '1300']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708', '7492', '1300', '6900']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100']
Xn: [5250, '5625', '6406', '0368', '1354', '8333', '4388', '2545', '4770', '7529', '6858',
'0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100', '4100']
semilla: 5250 semilla nueva: 5625
Xn: [5658]
Xn: [5658, '0129']
Xn: [5658, '0129', '0166']
Xn: [5658, '0129', '0166', '0275']
Xn: [5658, '0129', '0166', '0275', '0756']
Xn: [5658, '0129', '0166', '0275', '0756', '5715']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',
'0368']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',
'0368', '1354']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',
'0368', '1354', '8333']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',
'0368', '1354', '8333', '4388']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',
'0368', '1354', '8333', '4388', '2545']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',
'0368', '1354', '8333', '4388', '2545', '4770']
Xn: [5658, '0129', '0166', '0275', '0756', '5715', '6612', '7185', '6242', '9625', '6406',

[illegible]


```
Xn: [3386, '4649', '6132', '6014', '1681', '8257', '1780', '1684', '8358', '8561', '2907',  
'4506', '3040', '2416', '8370', '0569', '3237', '4781', '8579', '5992', '9040', '7216', '0706']  
Xn: [3386, '4649', '6132', '6014', '1681', '8257', '1780', '1684', '8358', '8561', '2907',  
'4506', '3040', '2416', '8370', '0569', '3237', '4781', '8579', '5992', '9040', '7216', '0706',
```

[illegible]

[illegible]

```
'4770', '7529', '6858', '0321']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100']
Xn: [4682, '9211', '8425', '9806', '1576', '4837', '3965', '7212', '0129', '0166', '0275',
'0756', '5715', '6612', '7185', '6242', '9625', '6406', '0368', '1354', '8333', '4388', '2545',
'4770', '7529', '6858', '0321', '1030', '0609', '3708', '7492', '1300', '6900', '6100', '2100',
'4100']
itR: [101, 13, 8, 51, 45, 54, 38, 29, 6, 68, 44, 85, 41, 25, 55, 6, 52, 81, 8, 24, 15, 64, 96,
84, 39, 40, 57, 87, 46, 67, 50, 6, 50, 88, 2, 60, 20, 62, 71, 23, 59, 49, 21, 91, 73, 54, 59, 29,
85, 72, 88, 46, 54, 12, 59, 41, 58, 49, 35, 85, 34, 41, 3, 72, 40, 61, 54, 27, 48, 15, 62, 17, 57,
45, 44, 58, 100, 29, 32, 55, 62, 9, 43, 6, 10, 79, 46, 56, 53, 21, 29, 15, 87, 103, 58, 78, 53,
96, 52, 36]
leng 100
```

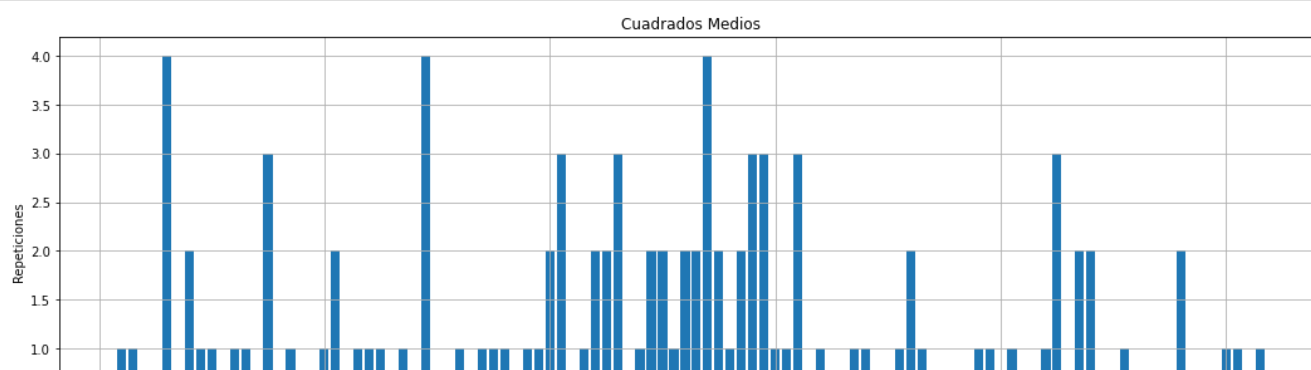
In [51]:

```
from collections import Counter
print(Counter(iteracionesRepetidas))
valor=list(Counter(iteracionesRepetidas).keys())
repeticiones=list(Counter(iteracionesRepetidas).values())
```

```
Counter({54: 4, 29: 4, 6: 4, 85: 3, 41: 3, 15: 3, 46: 3, 62: 3, 59: 3, 58: 3, 8: 2, 45: 2, 44: 2,
55: 2, 52: 2, 96: 2, 40: 2, 57: 2, 87: 2, 50: 2, 88: 2, 49: 2, 21: 2, 72: 2, 53: 2, 101: 1, 13: 1,
51: 1, 38: 1, 68: 1, 25: 1, 81: 1, 24: 1, 64: 1, 84: 1, 39: 1, 67: 1, 2: 1, 60: 1, 20: 1, 71: 1, 2
3: 1, 91: 1, 73: 1, 12: 1, 35: 1, 34: 1, 3: 1, 61: 1, 27: 1, 48: 1, 17: 1, 100: 1, 32: 1, 9: 1, 43
: 1, 10: 1, 79: 1, 56: 1, 103: 1, 78: 1, 36: 1})
```

In [60]:

```
import matplotlib.pyplot as plt
fig, gra=plt.subplots(figsize=(18,6))
gra.bar(valor,repeticiones)
plt.title("Cuadrados Medios")
plt.grid()
plt.xlabel("Iteraciones")
plt.ylabel("Repeticiones")
plt.show()
```





Congruencia Lineal

In [55]:

```
a=3
b=5
m=19
x0=4440
iteraciones=True
Unn=0
iteracioness=[]
NewXnn=x0
i=0
iteracioness.append(i)
i=i+1
for i in range(0,100):
    a=a+5
    b=b+1
    m=m+7
    Xn=[]
    Un=[]
    NewXnn= (a * NewXnn + b) % m
    NewUnn=NewXnn/m
    Xnn=NewXnn
    while iteraciones:
        Xnn= (a * Xnn + b) % m
        Xn.append(Xnn)
        Unn=Xnn/m
        if Unn in Un:
            iteracioness.append(i)
            break;
        else:
            Un.append(Unn)
            i=i+1
print(iteracioness)
```

```
[0, 4, 31, 7, 49, 31, 25, 10, 19, 48, 53, 13, 62, 32, 49, 19, 145, 82, 45, 37, 175, 61, 107, 58,
43, 72, 31, 32, 111, 31, 86, 88, 274, 52, 161, 64, 89, 105, 73, 62, 83, 76, 197, 50, 70, 127, 55,
88, 54, 78, 409, 97, 242, 64, 64, 104, 259, 66, 61, 87, 278, 282, 136, 106, 529, 142, 69, 86, 247,
318, 323, 91, 129, 124, 340, 81, 201, 121, 189, 98, 271, 153, 673, 86, 386, 237, 679, 125, 339, 40
6, 147, 131, 103, 96, 431, 112, 164, 154, 373, 143, 817]
```

In [56]:

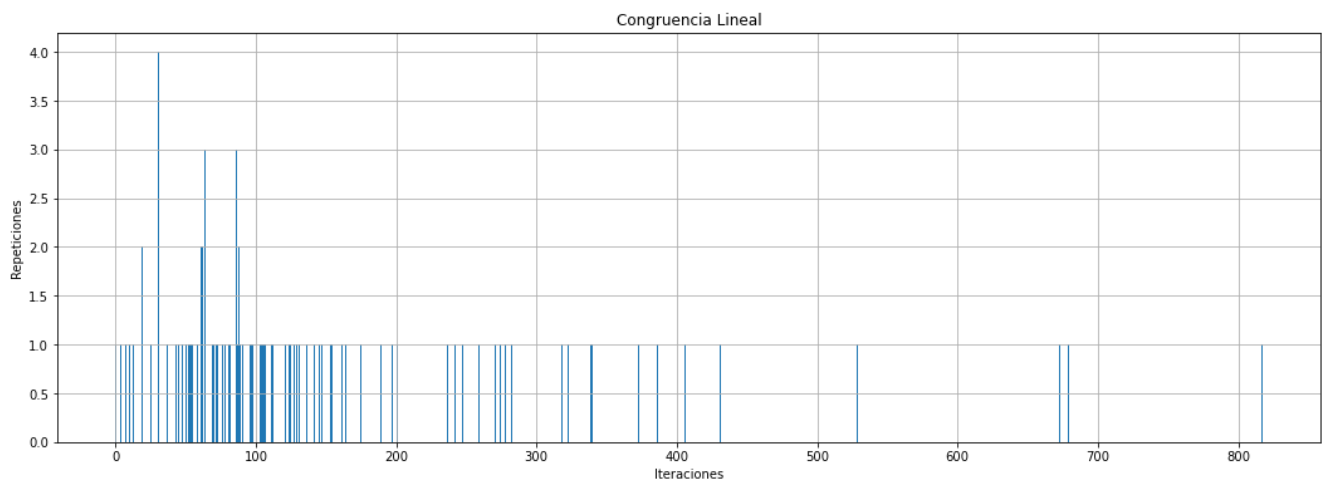
```
from collections import Counter
print(Counter(iteracioness))
valorr=list(Counter(iteracioness).keys())
repeticioness=list(Counter(iteracioness).values())
```

```
Counter({31: 4, 86: 3, 64: 3, 49: 2, 19: 2, 62: 2, 32: 2, 61: 2, 88: 2, 0: 1, 4: 1, 7: 1, 25: 1, 1
0: 1, 48: 1, 53: 1, 13: 1, 145: 1, 82: 1, 45: 1, 37: 1, 175: 1, 107: 1, 58: 1, 43: 1, 72: 1, 111:
1, 274: 1, 52: 1, 161: 1, 89: 1, 105: 1, 73: 1, 83: 1, 76: 1, 197: 1, 50: 1, 70: 1, 127: 1, 55: 1,
54: 1, 78: 1, 409: 1, 97: 1, 242: 1, 104: 1, 259: 1, 66: 1, 87: 1, 278: 1, 282: 1, 136: 1, 106: 1,
529: 1, 142: 1, 69: 1, 247: 1, 318: 1, 323: 1, 91: 1, 129: 1, 124: 1, 340: 1, 81: 1, 201: 1, 121:
1, 189: 1, 98: 1, 271: 1, 153: 1, 673: 1, 386: 1, 237: 1, 679: 1, 125: 1, 339: 1, 406: 1, 147: 1,
131: 1, 103: 1, 96: 1, 431: 1, 112: 1, 164: 1, 154: 1, 373: 1, 143: 1, 817: 1})
```

In [58]:

```
import matplotlib.pyplot as plt
figg, graa=plt.subplots(figsize=(18,6))
graa.bar(valorr,repeticioness)
plt.title("Congruencia Lineal")
plt.grid()
plt.xlabel("Iteraciones")
plt.ylabel("Repeticiones")
```

```
plt.show()
```



Conclusiones:

- Los números pseudoaleatorios pueden variar mucho según la semilla que se le de al inicio
- Los métodos para generar números pseudoaleatorios tienen un proceso similar pero los resultados pueden variar notoriamente.

Opiniones:

- El mejor método según mi opinión es el de congruencia lineal por los parámetros que se pasa además del fácil procesamiento que tiene por el corto procedimiento.

Recomendaciones:

- Mientras más grande sea la semilla habrá una longitud más grande hasta que este se repita.