CHAPTER 3700 INDEX

This chapter provides a way for you to determine if it is more economical to lease or purchase equipment.

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CONVERSION TABLE

(Section Number Revisions)

Old Number	New Number
None	3700
None	3701
3700	3710
3710	3720
3720	3730
3730	3740
3731	3710
3750	3750
3761	3760

GENERAL POLICY

(New 8/92) **3700**

When acquiring equipment, determine if it would be better to lease or purchase the equipment. An analysis will make it possible to know which method of acquiring the equipment is the least expensive. This chapter gives the guidelines to make a lease/purchase analysis.

TERMS AND DEFINITIONS

(New 8/92) **3701**

The following terms are defined as they are used in this SAM chapter. Many of the terms are explained with examples and in more detail later in this chapter.

Amortization.
Evenly spreading equipment acquisition costs over the period of useful life or the period of payment.

Annuity.
A series of payments made at evenly spaced intervals.

Break-even point.
The point during a lease when the cumulative leasing costs to date equal the purchase price.

DGS.
The Department of General Services.

Present Value.
The value today of an amount to be paid later, discounted at some interest or discount rate.

Purchase Option.
The legal right to buy something during a defined period at a defined price.

Rental Payments.
Periodic payments, such as monthly, for the right to use leased equipment.

Salvage Value.
The selling price, less removal or disposal costs, of your used equipment.

Useful Life.
The length of time that the equipment will serve program needs before it wears out or the program need for the equipment ends, whichever occurs first.

LEASE/PURCHASE ANALYSIS—EQUIPMENT

(Revised & Renumbered from 3700 8/92) **3710**

Prepare a lease/purchase analysis in accordance with SAM Section 1276 and Management Memos regarding acquisition of equipment. The analysis must be completed on the "Lease Versus Purchase Analysis–Equipment" form shown in the Appendix at the end of this chapter. Any assumptions which are peculiar to a given acquisition should be noted on the back of the form. If this format will not fit the particular situation, use some other logical analytical sequence. Use present value techniques when doing a lease/purchase analysis. Submit one copy. If you have questions or need help working on the analysis, call the Research and Analysis Unit of the DGS Office of Procurement. A completed sample form is provided in the Appendix. See SAM Section 3740 for instructions on completing the sample form.

Do a lease/purchase analysis when arranging to rent certain equipment. In this case, submit the analysis with the contract to the DGS Office of Legal Services. This analysis must be in the same format.

The lease/purchase cost comparison views the purchase of equipment as an investment. Therefore, the basic issue is if the rental and other costs that are saved by investing in (purchasing) the equipment will provide an adequate return on investment. This approach compares the purchase price with the present value of the series of payments and other costs that are saved when the equipment is purchased. The present value (discounted cash flow) concept is based on the time value of money. It considers the fact that the dollar today is worth more than a dollar tomorrow because of its earnings potential. If the value of money is 9.479 percent annually, then $100 a year from now is worth $91.34 today; i.e., $91.34 x 1.09479 = $100.

Even when your lease/purchase analysis indicates that purchasing is more desirable, the best alternative for the State may be to lease or lease with an option to buy. This is most often true if any of the following conditions exist:

1. Trying out the system for a while before buying it.
2. The system's design is new and untried.
3. Decisions are pending that might change how the system is defined.
4. Data needed to complete the analysis is still uncertain.

ITEMS TO BE CONSIDERED

(Revised & Renumbered from 3710 8/92) **3720**

Consider the following items when making your lease/purchase analysis:

Maintenance Costs. Is the cost of keeping the equipment in good working condition the same for each alternative? If not, include the maintenance costs in the present value calculations. Deduct the maintenance costs from lease costs, or add them to the purchase price for proper analysis.

Purchase Options. If the lease gives an option to buy the equipment, how will using this option affect the total cost? Also, when is it least costly to use the purchase option, and when will using the option cost more than the cash purchase price?

Useful Life of the Equipment. There are two ways to look at how long equipment will be useful. One way is, how long will the equipment be needed for the program it will support? The second way is, how long will the equipment last before it wears out? Check with the equipment vendor to see if the equipment can last as long as needed. The DGS has set the useful life of office copiers at five to seven years depending on workload categories and word processing equipment at seven years.

Salvage Value. When the equipment will last longer than the need for it, include an estimate of the equipment's salvage value in your cost analysis.

Opportunity Cost. Figure out how much money would be earned over the same period of time if the money was invested in something else other than the purchase. Use the interest rate of 9.479 percent to compute present value.

Other Items. Be sure to consider other items that are unique to the proposal when making the lease/purchase analysis.

COMPOUND INTEREST AND ANNUITY TABLES

(Revised & Renumbered from 3720 8/92) **3730**

Use compound interest and annuity tables when making the lease/purchase analysis. Three commonly used tables are described below. These can be found in this SAM chapter's Appendix, Annuity Tables. Choose the right set of interest tables according to whether the period is monthly, quarterly, semiannually, or annually as noted on the top of each page.

1. Present Value of $1. Use this percentage to find the value now of an amount due sometime in the future when the interest is compounded at the given interest rate for the periods shown in the table. This table *is not* cumulative.

2. Present Value of Annuity of $1. Use this percentage to find the value now of a series of payments that are due at equal intervals of time in the future when payments are made each period at the given interest rate. This table *is* cumulative.

3. Annuity Whose Present Value is $1. Use this percentage to find the monthly amortization payment which is enough to pay both principal and interest for a set number of times over a given length of time. This table *is* cumulative.

PRESENT VALUE TECHNIQUES

(Revised & Renumbered from 3730 8/92) **3740**

Before making a lease/purchase analysis, gather the following information from the sources listed:

1. Cost, *if purchased*, of:
   a. Purchase price. —From the vendor.
   b. Maintenance. —From the vendor.
   c. Sales tax. —Compute from the purchase price.
   d. Delivery and installation. —From the vendor.
   e. Any other incurred costs. —From the vendor.
2. Cost, *if leased*, of:
   a. Amount of each lease payment. —From the vendor. For office copiers, estimate the average number of monthly copies.
   b. Maintenance (if not included in the lease payment.) —From the vendor.
   c. Sales tax. —Compute from the lease payment.
   d. Delivery and installation. —From the vendor.
   e. Any other incurred costs. —From the vendor.
3. Useful life of the equipment. Determine how long the equipment is needed based on the length of the program. From the vendor, find out how long the equipment should last.
4. Estimated salvage value when the equipment is no longer needed. This value is only needed if the equipment will outlast the program. Estimate this value with help from the vendor and/or the DGS Office of Procurement.

Complete the lease/purchase analysis on the Lease Versus Purchase Analysis–Equipment Form, GSOP 176, shown in the Appendix at the end of this chapter. Both a blank and completed example of this form are shown in the Appendix. This form uses the three most common ways to figure present value.

1. Discounted cash flow.
2. Amortized cost.
3. Break-even point.

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PRESENT VALUE TECHNIQUES **3740** (Cont. 1)
(Revised & Renumbered from 3730 8/92)

The following information is given to help explain these three present value techniques. It also serves as an example for filling out the form's three sections.

Figuring out the Discounted Cash Flow. Use this method to compare the total cost of leasing to the total cost of purchasing. This method allows for the time value of money, based upon the premise that a dollar today is worth more than a dollar tomorrow because of earnings potential. If the value of money is 9.479 percent annually, then $100 a year from now is worth $91.34 today; i.e., 1.09479 x $91.34 = $100. Thus you can find out if it is less expensive to postpone the payments until some future time by leasing, or make the entire payment right away by purchasing.

The eleven items under Computation of Discounted Cash Flow in the example shown in the Appendix were computed as follows:

1. Purchase price = $8,000. (When rental credits can be applied, the amount subtracted from the purchase price should be stated.)

2. The following purchase costs:

   a. Maintenance if purchased: $50 per month (indicate period). Monthly table for Present Value of Annuity of **$1** for 96 months (useful life) shows a factor of 68.04:

      $50 x 68.04 = $3,402

   b. Sales tax of six percent on $8,000 = $480.

   c. Any other costs should be shown.

   Items 2a, 2b and 2c are then subtotaled.

3. Purchase price and subtotaled purchase costs are combined to produce a total purchase cost; i.e., $8,000 + $3,882 = $11,882.

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PRESENT VALUE TECHNIQUES **3740** (Cont. 2)
(Revised & Renumbered from 3730 8/92)

4. Subtract the following if the equipment will last longer than your program:

   a. Estimate of salvage value.

   b. The Present Value of $1 for the periods of your program's life. Find this value in the tables in the Appendix.

   c. Salvage value is multiplied by the Present Value of $1 figure to give you the present value of the salvage value.

5. Subtract the salvage value (none in this example) from Total Purchase Costs to give you the Net Purchase Costs, which remain $11,882.

6. Lease payment per month (indicate period) = $350.

7. Add the following costs for leasing over the same length of time as line 6 above.

   a. The maintenance contract is included in this lease but should be shown if separate.

   b. Sales tax of six percent on $350 = $21.

   c. Any other costs should be shown.

   Subtotal these lease costs.

8. Add the lease payment and subtotaled lease costs to get the Total Lease Payment; i.e., $350 + $21 = $371.

9. The monthly table (periods must match) for the Present Value of Annuity of $1 for 96 periods (useful life) shows a factor of 68.04.

10. The present value of the lease is computed by multiplying the total lease payment by the factor for the Present Value of Annuity of $1; i.e., $371 x 68.04 = $25,243.

11. Compare the Net Purchase Cost with the Present Value of the Lease. Subtract the smaller amount from the larger amount; i.e., $25,243 minus $11,882 = $13,361.

The number on line 11 shows the amount that can be saved by choosing the less costly option. In this example the purchase is less costly.

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PRESENT VALUE TECHNIQUES **3740** (Cont. 3)

(Revised & Renumbered from 3730 8/92)

Computation of Amortized Cost. Use this method to compare the cost of leasing and purchasing on a monthly basis (or some other regular period). A sum of money today is converted to a series of equal payments for a given number of times. This follows the same principle as an installment loan.

The three items under Computation of Amortized Costs in the example shown in the Figures Appendix were computed as follows:

12. The monthly table for the Annuity Whose Present Value is $1 for the period of the useful life (96 months) shows a factor of .8147.

13. Multiply the net purchase costs shown on line 5 by the factor shown on line 12. This gives you the amortized cost of purchase; i.e., $11,882 x .8147 = $175, which equals the monthly cost of purchase over the period of the useful life.

14. Compare the Total Lease Payment (line 8) with the Amortized Cost of Purchase (line 13). Subtract the smaller amount from the larger amount; i.e., $371 minus $175 = $196.

The number on line 14 shows the amount that can be saved per period by choosing the lesser option. In this example the purchase is less costly.

Computation of Break-even Point. Use this method to figure out when the leasing costs equal the purchase price. This method allows for the effect of interest. In order to figure out the break-even point, any maintenance costs that are included in the purchase price or lease payment must be removed.

(Continued)

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PRESENT VALUE TECHNIQUES **3740** (Cont. 4)
(Revised & Renumbered from 3730 8/92)

The four items under Computation of Break-even Point in the example shown in the Figures Appendix are computed as follows:

15. Subtract the maintenance cost for purchased equipment (line 2A) from net purchase costs (line 5). This gives you the total purchase cost without maintenance; i.e., $11,882 minus $3,482 = $8,480.

16. Write down the maintenance costs per period which are included in the lease payment (see line 2A). Then subtract this amount from the lease payment (line 8); i.e., $371 minus $50 = $321.

17. Divide the purchase costs (line 15) by the lease payment (line 16). This gives you the present value factor; i.e., $8,480 divided by $321 = $26.42.

18. Find the factor now shown in line 17 on the appropriate period table for the Present Value of Annuity of $1 in the Tables Appendix at the end of this SAM chapter; i.e., on the *monthly* table, 26.42 appears at 30 months.

Line 18 shows the break-even point; i.e., the point in time when lease costs equal purchase costs. When the useful life exceeds the break-even point, as in the above example, it is less costly to purchase the equipment. If the useful life is shorter than the break-even point, it is cheaper to lease the equipment. In our example, the break-even point is at 30 months.

Most Economical Method of Acquisition. In the case of our example, the most economical method of acquisition is "purchase." Therefore, check the purchase box on line 19.

LEASE WITH OPTION TO PURCHASE

(Revised 8/92) **3750**

Evaluation of the Option to Purchase. It may be best to lease with an option to purchase instead of regular lease or purchase. A lease with an option to purchase is like a regular lease but it gives the right to purchase the equipment at some time before all of the lease payments have been made. This alternative may be best when it is necessary or advantageous to proceed with the acquisition of the equipment that meets system specifications, but it is desirable to temporarily postpone a decision to purchase. This may be the case when an agency wants to try the system out for a short while to first prove the validity of the system design. This is especially the case when there is no previous experience with the system, or when decisions which might substantially alter the system specifications are imminent.

The possibility that future advances in technology will render the selected equipment comparatively obsolete before the cost advantage point (see break-even analysis) is reached should not stop an agency from purchasing the equipment as long as the equipment is able to satisfy their requirements.

Evaluate the above considerations against the costs associated with postponing the decision to purchase. This cost is determined as follows:

[(Purchase price–rental credits towards purchase) x Present Value of $l] – [Price–(Present Value of Annuity of $1 x lease payment)]

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LEASE WITH OPTION TO PURCHASE **3750** (Cont. 1)
(Revised 8/92)

Example:

For this example, assume the same facts as in the sample form and instructions used in SAM Section 3740, and also assume the following:

1. 100 percent of the first three months of rental is credited toward the purchase.
2. After the first three months, 50 percent of the monthly rental payments is credited toward the purchase.
3. Payments are credited up to a maximum of 50 percent of total payments.
4. The decision to purchase will be postponed for one year.

The cost of postponing the decision to purchase is determined as follows:

Purchase price = $8,000
Total rental payments for one year = $4,200

Rental credits:
Months 1–3 = $1,050
Months 4–12 = $1,575
Total = $2,625

50 percent of total rental payments = $2,100

Credit allowance = $2,100
Cost = ($8,000–$2,100) x .9134172*
= $8,000–(11.4294263** x 350)
= ($5,900 x .9134172)–($8,000–$4,000)
= $5,389–$4,000
= $1,389 = cost of postponing decision to purchase

* See tables for monthly payments Present Value of $1.

** See tables for monthly payments Present Value of Annuity of $1.

Compare the cost of postponing the decision of whether to purchase (as determined above) with the advantages of postponing the decision in order to gather additional information. When the desired equipment has been used or tested by other units, there is generally little need to further test the equipment.

REVIEW OF LEASE

(Revised & Renumbered from 3761 8/92) **3760**

Review any equipment that is acquired under a lease when the conditions that lead to the lease decision have substantially changed, or may soon change. Frequently, there are changes in the projected useful life. For example, the useful life of the equipment may change with increased workload volume. These changes alter the balance between lease versus purchase costs. At such times the equipment lease/purchase should be reviewed by using the lease/purchase analysis, using the same format as the original lease/purchase analysis. Generally, vendors allow credits of rental payments toward the purchase. Adjust the purchase price accordingly.

LEASE VERSUS PURCHASE ANALYSIS – EQUIPMENT

(SAMPLE)

Based upon the GSOP-176 (4/76) — For Instructions see SAM section 3700 et. seq.

Department	Organization Unit	Date
General Services	Office of Procurement	October 10, 1990

Description of Equipment
One (Identify type – brand and model) Machine

Program Useful Life:	Rate of Return	Prepared by	Telephone Number
8 Years OR 96 Months	9.479%	Louise Watts	2-4668 ATTS 492-4668

COMPUTATION OF DISCOUNTED CASH FLOW			
1. Purchase Price (Indicate Deducted Rental Credits if any - $_____)		$8,000.00	
2. Add the Following Purchase Costs:			
A. Maintenance Per ☒ Month ☐ Year ☐ (Other) _____ = $ 50.00 X 68.04 (Present value of annuity of $1 for per 100 of useful life.)	$3,402.00		
B. Sales Tax	$480.00		
C. Other	0		
Subtotal: (Line 2A + Line 2B + Line 2c)		$3,882.00	
3. Total Purchase Costs		$11,882.00	
4. Less the following, if mechanical life is longer than program level:			
A. Estimated Salvage Value	$0		
B. Present Value of $1 for _____ periods	$0		
C. Present Value of Salvage Value (Line 4A X Line 4B)		$0	
5. Net Purchase Costs (Line 3 – Line 4)			$11,882.00
6. **LEASE** Payment per ☒ Month ☐ Year ☐ (Other)		$350.00	
7. Add the following Lease Costs for the Same Period as Line 6 Above: A Maintenance contract (if not included in lease payment)	Included		
B. Sales Tax	$21.00		
C. Other	$0		
Subtotal: (Line 7A + Line 7B + Line 7C)		$21.00	
8. Total Lease Payment		$371.00	
9 Present Value of annuity of $1 for 96 periods (useful life)		68.04	
10 Present Value of the Lease (Line 8 X Line 9) (rounding to whole dollar)			$25,243.00
11. Difference between purchase costs and lease costs (Line 10 – Line 5 or Line 5 – Line 10)			$13,361.00
Line 11 Indicated the potential Life Period Savings if ☒ Purchased ☐ Leased			
COMPUTUATION OF AMORTIZED COSTS			
12. Annuity Whose Present value is $1 for 96 Periods (Useful Life)	0.147		
13. Amortized Cost of Purchase (Line 5 X Line 12) per Period		$175.00	
14. Difference in Periodic payment (Line 8 – Line 13 or Line 13-Line 8)			$196.00
Line 14 indicates the Potential Periodic Payment Savings if ☒ Purchased ☐Leased			
COMPUTATION OF BREAK-EVEN POINT			
15. Net Purchase Costs Less Maintenance (Line 5 – Line 2A)	$8,480.00		
16. Total lease Payment (Line 8) less maintenance (**$50.00**) if included in Payment	$321.00		
17. Factor for the Present Value of Annuity of $1 per Period (Line 15 Divided by Line 16)		26.42	
18 Break-Even Point = ☒ Month. ☐ Year ☐ (Other) at which Line 17 appears in the present value of annuity of $1 (i.e. Lease Costs = Purchase Costs)			30
19. **MOST ECONMONICAL METHOD OF ACQUISITION = ☒ PURCHASE ☐ LEASE**			

ANNUITY TABLES
EFFECTIVE ANNUAL RATE OF RETURN OF 9.4790%

ANNUAL PAYMENTS

PERIOD	PRESENT VALUE OF $1	PRESENT VALUE OF ANNUITY OF $1	ANNUITY WHOSE PRESENT VALUE IS $1
1	0.9134172	0.9134172	1.0947900
2	0.8343310	1.7477482	0.5721648
3	0.7620923	2.5098405	0.3984317
4	0.6961082	3.2059486	0.3119202
5	0.6358372	3.8417858	0.2602956
6	0.5807846	4.4225705	0.2261128
7	0.5304987	4.9530691	0.2018950
8	0.4845666	5.4376357	0.1839035
9	0.4426115	5.8802472	0.1700609
10	0.4042889	6.2845361	0.1591207
11	0.3692845	6.6538206	0.1502896
12	0.3373108	6.9911314	0.1420384
13	0.3081055	7.2992369	0.1370006
14	0.2814288	7.5806657	0.1319145
15	0.2570619	7.8377276	0.1275880
16	0.2348048	8.0725324	0.1238769
17	0.2144747	8.2870072	0.1206708
18	0.1959049	8.4829121	0.1178840
19	0.1789429	8.6618550	0.1154487
20	0.1634495	8.8253046	0.1133105
21	0.1492976	8.9746022	0.1114256
22	0.1363710	9.1109732	0.1097578
23	0.1245636	9.2355368	0.1082774
24	0.1137786	9.3493154	0.1069597
25	0.1039273	9.4532427	0.1057838
26	0.0949290	9.5481717	0.1047321
27	0.0867098	9.6348814	0.1037895
28	0.0792022	9.7140836	0.1029433
29	0.0723446	9.7864283	0.1021823
30	0.0660808	9.8525091	0.1014970
31	0.0603594	9.9128685	0.1008790
32	0.0551333	9.9680018	0.1003210
33	0.0503597	10.0183615	0.0998167
34	0.0459994	10.0643609	0.0993605
35	0.0420167	10.1063775	0.0989474
36	0.0383787	10.1447563	0.0985731
37	0.0350558	10.1798121	0.0982336
38	0.0320206	10.2118326	0.0979256
39	0.0292481	10.2410808	0.0976459
40	0.0267158	10.2677965	0.0973919

See SAM Section 5730

ANNUITY TABLES
EFFECTIVE ANNUAL RATE OF RETURN OF 9.4790%

SEMI-ANNUAL PAYMENTS

PERIOD	PRESENT VALUE OF $1	PRESENT VALUE OF ANNUITY OF $1	ANNUITY WHOSE PRESENT VALUE IS $1
1	0.9557286	0.9557286	1.0463221
2	0.9134172	1.8691458	0.5350037
3	0.8729790	2.7421248	0.3646807
4	0.8343310	3.5764558	0.2796064
5	0.7973940	4.3738498	0.2286315
6	0.7620923	5.1359420	0.1947062
7	0.7283534	5.8642954	0.1705235
8	0.6967082	6.5604036	0.1524296
9	0.6652905	7.2256941	0.1383950
10	0.6358372	7.8615313	0.1272017
11	0.6076878	8.4692191	0.1180746
12	0.5807846	9.0500038	0.1104972
13	0.5550725	9.6050762	0.1041116
14	0.5304987	10.1355749	0.0986624
15	0.5070128	10.6425877	0.0939621
16	0.4845666	11.1271543	0.0898702
17	0.4631142	11.5902685	0.0862793
18	0.4426115	12.0328799	0.0831056
19	0.4230165	12.4558964	0.0802833
20	0.4042889	12.8601853	0.0777594
21	0.3863905	13.2465758	0.0754912
22	0.3692845	13.6158603	0.0734438
23	0.3529357	13.9687960	0.0715881
24	0.3373108	14.3061068	0.0699002
25	0.3223776	14.6284844	0.0683598
26	0.3081055	14.9365899	0.0669497
27	0.2944652	15.2310551	0.0656553
28	0.2814288	15.5124839	0.0644642
29	0.2689696	15.7814535	0.0633655
30	0.2570619	16.0385154	0.0623499
31	0.2456815	16.2841969	0.0614092
32	0.2348048	16.5190017	0.0605363
33	0.2244097	16.7434144	0.0597250
34	0.2144747	16.9578861	0.0589696
35	0.2049796	17.1628657	0.0582653
36	0.1959049	17.3587707	0.0576078
37	0.1872319	17.5460026	0.0569930
38	0.1789429	17.7249455	0.0564177
39	0.1710209	17.8959664	0.0558785
40	0.1634495	18.0594159	0.0553728

See SAM Section 3730

ANNUITY TABLES
EFFECTIVE ANNUAL RATE OF RETURN OF 9.4790%

QUARTERLY PAYMENTS

PERIOD	PRESENT VALUE OF $1	PRESENT VALUE OF ANNUITY OF $1	ANNUITY WHOSE PRESENT VALUE IS $1
1	7761370.9	0.9776137	1.0228989
2	0.9557286	1.9333424	0.5172390
3	0.9343334	2.8676758	0.3487145
4	0.9134172	3.7810930	0.2644738
5	0.8929692	4.6740622	0.2139467
6	0.8729790	5.5470412	0.1802763
7	0.8534362	6.4004774	0.1562383
8	0.8343310	7.2348084	0.1382207
9	0.8156534	8.0504618	0.1242165
10	0.7973940	8.8478558	0.1130217
11	0.7795433	9.6273991	0.1038702
12	0.7620923	10.3894914	0.0962511
13	0.7450319	11.1345233	0.0898108
14	0.7283534	11.8628767	0.0842966
15	0.7120483	12.5749250	0.0795233
16	0.6961082	13.2710331	0.0753521
17	0.6805249	13.9515581	0.0716766
18	0.6652905	14.6168486	0.0684142
19	0.6503972	15.2672457	0.0654997
20	0.6358372	15.9030829	0.0628809
21	0.6216032	16.5246861	0.0605155
22	0.6076878	17.1323739	0.0583690
23	0.5940839	17.7264578	0.0564128
24	0.5807846	18.3072425	0.0546232
25	0.5677830	18.8750255	0.0529801
26	0.5550725	19.4300980	0.0514665
27	0.5426465	19.9727445	0.0500682
28	0.5304987	20.5032432	0.0487728
29	0.5186228	21.0218659	0.0475695
30	0.5070128	21.5288787	0.0464492
31	0.4956626	22.0245413	0.0454039
32	0.4845666	22.5091080	0.0444265
33	0.4737190	22.9828269	0.0435107
34	0.4631142	23.4459411	0.0426513
35	0.4527468	23.8986879	0.0418433
36	0.4426115	24.3412994	0.0410824
37	0.4327031	24.7740024	0.0403649
38	0.4230165	25.1970189	0.0396872
39	0.4135467	25.6105656	0.0390464
40	0.4042889	26.0148545	0.0384396

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ANNUITY TABLES
EFFECTIVE ANNUAL RATE OF RETURN OF 9.4790%

MONTHLY PAYMENTS

PERIOD	PRESENT VALUE OF $1	PRESENT VALUE OF ANNUITY OF $1	ANNUITY WHOSE PRESENT VALUE IS $1
1	0.9924812	0.9924815	1.0075754
2	0.9850196	1.9775011	0.5056887
3	0.9776137	2.9551149	0.3383963
4	0.9702636	3.9253784	0.2547525
5	0.9629687	4.8883471	0.2045682
6	0.9557286	5.8440758	0.1711135
7	0.9485430	6.7926188	0.1472186
8	0.9414114	7.7340302	0.1292987
9	0.9343334	8.6683636	0.1153620
10	0.9273087	9.5956723	0.1042136
11	0.9203367	10.5160091	0.0950931
12	0.9134172	11.4294263	0.0874935
13	0.9065497	12.3359760	0.0810637
14	0.8997339	13.2357099	0.0755532
15	0.8929692	14.1286791	0.0707780
16	0.8862555	15.0149346	0.0666004
17	0.8795922	15.8945267	0.0629147
18	0.8729790	16.7675057	0.0596392
19	0.8664155	17.6339213	0.0567089
20	0.8599014	18.4938227	0.0540721
21	0.8534363	19.3472589	0.0516869
22	0.8470197	20.1942786	0.0495190
23	0.8406514	21.0349301	0.0475400
24	0.8343310	21.8692611	0.0457263
25	0.8280581	22.6973192	0.0440581
26	0.8218324	23.5191516	0.0425185
27	0.8156535	24.3348051	0.0410934
28	0.8095210	25.1443261	0.0397704
29	0.8034346	25.9477607	0.0385390
30	0.7973940	26.7451548	0.0373900
31	0.7913989	27.5365536	0.0363154
32	0.7854487	28.3220024	0.0353082
33	0.7795434	29.1015458	0.0343624
34	0.7736824	29.8752282	0.0334725
35	0.7678655	30.6430936	0.0326338
36	0.7620923	31.4051860	0.0318419
37	0.7563625	32.1615485	0.0310930
38	0.7506759	32.9122244	0.0303838
39	0.7450319	33.6572563	0.0297113
40	0.7394304	34.3966867	0.0290726

See SAM Section 3730

ANNUITY TABLES
EFFECTIVE ANNUAL RATE OF RETURN OF 9.4790%

MONTHLY PAYMENTS

PERIOD	PRESENT VALUE OF $1	PRESENT VALUE OF ANNUITY OF $1	ANNUITY WHOSE PRESENT VALUE IS $1
41	0.7338710	35.1305578	0.0284652
42	0.7228534	35.8589112	0.0278871
43	0.7228773	36.5817886	0.0273360
44	0.7174424	37.2992310	0.0268102
45	0.7120483	38.0112793	0.0263080
46	0.7066948	38.7179741	0.0258278
47	0.7013816	39.4193557	0.0253682
48	0.6961082	40.1154640	0.0249280
49	0.6908746	40.8063385	0.0245060
50	0.6856803	41.4920188	0.0241010
51	0.6805250	42.1725438	0.0237121
52	0.6754085	42.8479523	0.0233383
53	0.6703304	43.5182827	0.0229788
54	0.6652906	44.1835733	0.0226328
55	0.6602886	44.8438619	0.0222996
56	0.6553243	45.4991862	0.0219784
57	0.6503972	46.1495834	0.0216687
58	0.6455072	46.7950906	0.0213698
59	0.6406540	47.4357446	0.0210811
60	0.6358373	48.0715819	0.0208023
61	0.6310567	48.7026386	0.0205328
62	0.6263122	49.3289507	0.0202721
63	0.62216032	49.9505540	0.0200198
64	0.61169297	50.5674837	0.0197756
65	0.6122914	51.1797751	0.0195390
66	0.6076879	51.7874630	0.0193097
67	0.6031190	52.3905820	0.0190874
68	0.5985845	52.9891664	0.0188718
69	0.5940840	53.5832504	0.0186625
70	0.5896174	54.1728679	0.0184594
71	0.5851844	54.7580523	0.0182622
72	0.5807847	55.3388370	0.0180705
73	0.5764181	55.9152550	0.0178842
74	0.5720843	56.4873394	0.0177031
75	0.5677831	57.0551225	0.0175269
76	0.5635142	57.6186367	0.0173555
77	0.5592775	58.1779142	0.0171887
78	0.5550726	58.7329868	0.0170262
79	0.5508993	59.2838860	0.0168680
80	0.5467574	59.8306434	0.0167138

See SAM Section 3730

ANNUITY TABLES
EFFECTIVE ANNUAL RATE OF RETURN OF 9.4790%

MONTHLY PAYMENT

PERIOD	PRESENT VALUE OF $1	PRESENT VALUE OF ANNUITY OF $1	ANNUITY WHOSE PRESENT VALUE IS $1
81	0.5426466	60.3732900	0.0165636
82	0.5385667	60.9118567	0.0164172
83	0.5345175	61.4463742	0.0162744
84	0.5304987	61.9768729	0.0161351
85	0.5265102	62.5033831	0.0159991
86	0.5225517	63.0259348	0.0158665
87	0.5186229	63.5445576	0.0157370
88	0.5147236	64.0592813	0.0156105
89	0.5108537	64.5701349	0.0154870
90	0.5070128	65.0771478	0.0153664
91	0.5032009	65.5803487	0.0152485
92	0.4994176	66.0797662	0.0151332
93	0.4956627	66.5754290	0.0150206
94	0.4919361	67.0673651	0.0149104
95	0.4882375	67.5556026	0.0148026
96	0.4845667	68.0401692	0.0146972
97	0.4809235	68.5210927	0.0145940
98	0.4773077	68.9984004	0.0144931
99	0.4737191	69.4721195	0.0143943
100	0.4701574	69.9422769	0.0142975
101	0.4666225	70.4088994	0.0142028
102	0.4631143	70.8720137	0.0141099
103	0.4596324	71.3316460	0.0140190
104	0.4561766	71.7878227	0.0139299
105	0.4527469	72.2405695	0.0138426
106	0.4493429	72.6899124	0.0137571
107	0.4459645	73.1358770	0.0136732
108	0.4426116	73.5784885	0.0135909
109	0.4392838	74.0177723	0.0135103
110	0.4359811	74.4537534	0.0134312
111	0.4327031	74.8864565	0.0133535
112	0.4294499	75.3159064	0.0132774
113	0.4262211	75.7421275	0.0132027
114	0.4230165	76.1651440	0.0131294
115	0.4198361	76.5849801	0.0130574
116	0.4166796	77.0016597	0.0129867
117	0.4135468	77.4152065	0.0129174
118	0.4104375	77.8256440	0.0128492
119	0.4073517	78.2329957	0.0127823
120	0.4042890	78.6372847	0.0127166

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