

373 SCRA

SB 159

(FILE 2)

In order to provide predictability in appraisals and reappraisals, for the benefit of the State and the public, the committee recommends the following:

1. At present many lessees are suffering hardship due to rent increases of several hundred percent. To provide for this relief and as a curative for such future increases the statutory provisions found in section nine of the attached bill are recommended. Provision for optional conversion of present leases to ones that will place a ceiling of 100% on rental increases every five years will largely prevent future hardship cases and resolve satisfactorily the present cases. With a rent ceiling, lease rental increases will be more predictable resulting in more financial stability for the lessee. (The Alaska Industrial Subdivision hearing panel recommends insuring predictability by placing some control over the size of the rental increase through utilization of a ceiling on the size of the increase in rental every five years.)

Sections 8 and 9 of the attached bill will accomplish the above recommendations.

2. The committee recommends that land offered over the counter be reviewed at 90 to 120 day intervals to determine if an increase in value has occurred. This

review is desired so that parcels are not undervalued by progressive changes in the market.

Section 10 of the attached bill would accomplish this.

3. Since public notice is covered in AS 38.05.345 the change to "appraisal" for AS 38.05.310 is warranted by its present content. The committee recommends that land may be appraised 120 days in advance of a sale or lease. The change from 90 to 120 days would be desirable in that minimum bid information could be given to the public well in advance of the actual sale or lease auction. In addition 11 AAC 54.140 should be repealed.

Section 10 of the attached bill will accomplish this.

4. In order to provide a workable solution to the problems of confidentiality of appraisal data, the committee recommends that the Director of the Division of Lands refrain from including confidential information in any appraisal prepared for the Division of Lands use. The committee recommends adoption of the following policy statement:

The director may make confidential those portions of appraisals and supporting data which contain information provided the appraiser in confidence. Such appraisals shall be subject to review by the local chapter of the American Institute of Real Estate Appraisers or the Society of Real Estate Appraisers to determine if the appraisal is acceptable under the professional practices and guidelines of the reviewing organization.

5. The committee believes that the word "primarily" may imply special consideration to some lessees. In order to treat all lessees fairly and equitably the committee recommends that the word "primarily" be stricken. Deleting "primarily" would clarify the basis for reappraisal. (This was also recommended by the Alaska Industrial Subdivision hearing panel.)

Section 8 of the attached bill will accomplish this.

To improve accounting policies, the following are recommended:

1. The committee recommends that all sales contracts over \$400.00 per year have the option of paying in quarterly installments instead of annual installments. It is the committee's belief that this would ease the financial

strain on the buyer and yet not add significantly to the State's administrative costs. To provide quarterly payments would require a change in AS 38.05.065 with the present annual payments deleted and the quarterly payment provision adopted in its place.

Section 3 of the attached bill would accomplish this.

2. The committee recommends that a \$10.00 fee charge to cover administrative costs be given to those who make sale or lease payments with checks that are returned. It is a standard business practice to provide for such charges and is recommended to protect the State's interests.
3. The committee recommends instituting default charges for late sale or lease payments. At present, there exists no penalty and many payments are late. The form of penalty recommended is notification charges to all delinquent payments and penalty charges to payments delinquent more than 30 days. The notification charge would be \$5.00 for the first notice, \$20.00 for the second notice and a penalty charge of 6 percent of the payment.

It is suggested that the fee charges be adopted as a regulation under authority of AS 38.05.035 (4)(5) as follows:

11 AAC 54.365. Delinquent Payments.

In the event of a delinquent payment, the following charges will apply:

1. A \$10.00 penalty for payment with a check that is returned.
2. A \$5.00 penalty for notification of payments over thirty-five days late.
3. A \$20.00 penalty for a second notification of payments more than fifty days late.
4. A penalty of 6 percent of the rental or sale payment for payments delinquent by more than thir / days.

(Eff. ___ ___ Register ___) Authority AS 38.05.035.

In order to achieve more flexibility and simplicity in handling land disposal transactions, the following are recommended:

1. The committee recommends that the State charge a market rate of interest in its sales contracts. The interest rate, at present 6%, is below market levels and may have contributed to inflated prices at state land sales. By setting interest rates at market levels, the State would help prevent inflated land prices and at the same time return more income to the State. To provide for a market rate of interest in sales contracts, no change in AS 38.05.065 would be required. The addition of a statement of market rate in this statute would be desirable, however.

Section 3 of the attached bill would accomplish this.

2. The committee recommends that the State adopt a system of level payments in place of declining payments in its sale contracts. The system of level payments is in common use in the business world, and the payment figures are easily set forth in a contract. The disadvantage of the present method is that interest must be recalculated every year and the payments decrease each year. From both the State's and the buyers' viewpoints, the level payment method would be preferred. The State would receive slightly more in interest payments over the contract terms and the buyer would not have to make as high initial payments. To provide

level payments would require a change in AS 38.05.065 with the present system deleted and the level payment system adopted in its place.

Sections 2 and 3 of the attached bill would accomplish this.

3. The committee recommends that in Title 38.05 the term "fair market value" be used in place of "fair appraised market value" and "market value." The meaning is felt to be the same in all cases. The committee would like to see one standard term used to avoid confusion and misunderstanding.

Sections 4, 5, 7, and 13 of the attached bill would accomplish this.

4. The current procedures for informing the public of state lands transactions are covered in AS 38.05.305 and AS 38.05.345. The two procedures do not mesh in a clear manner. The committee recommends that the procedures be clarified in a manner that will be flexible enough to inform the public fully and yet not require multiple advertising for minor negotiated transactions.

Section 11 of the attached bill will accomplish this.

5. The committee recommends that the Director be given the authority to set the payment period from one to twenty years. This type of flexibility would allow the State and buyers greater market possibilities. To provide for this would require that the installment clause in AS 38.05.065 be deleted and replaced by the one to twenty year provision.

Section 3 of the attached bill would accomplish this.

6. The committee recommends that the State be given more flexibility to resolve contract of sale violations. This is necessary to prevent foreclosure as the only remedy for minor contract violations.

Section 3 of the attached bill would accomplish this.

To institute improvements in the leasing system, the following are recommended:

1. To implement the new lease provisions recommended by this committee new lease forms for various types of leases will be required. It is the committee's recommendation that the Division draft new lease forms to comply with the statutes adopted, and that the new forms be reviewed by this committee.

The attachments to the standard lease in Appendix C accomplish this.

2. The committee recommends that all state leases to other public agencies be at the normal fair market value rate of payment.

This reflects a regulation change.

3. The committee recommends that state government agencies get out of residential leasing.

This would reflect a policy change.

4. To provide the lessee insurance against a land boom or unexpected increase the committee recommends that rental increases at the five year reappraisal periods not exceed 100 percent of the prior existing annual rental rate. This action would increase the predictability of the lessee's payments. The stability thus created would add significant borrowing power for the lessee to finance improvements on the leased ground.

Section 8 of the attached bill would accomplish this.

5. The duration of a lease and the economic life of substantial improvements, such as stores or factories, may not coincide. In order to see that state leased land is used in a rational, economically productive manner the committee recommends that lessees of long-term leases be given a renewal option for up to fifteen years. This type of option would grant the lessee more flexibility in maximizing his investment returns, especially during the final years of his lease. It would also increase the lessee's planning possibilities for use of the leased ground. This action would also soften the impact of termination of the lease. Specifically, this would permit a lessee to make substantial repairs to a building when the remaining term of the lease would not otherwise justify it. .

Section 6 of the attached bill would accomplish this.

6. The committee agrees that a lease should be converted at its present classification, and the leaseholder should then have the option to change classification subject to Division of Lands approval.

This reflects an implementation recommendation in the event that House Bill ³⁸³ passes.

7. The committee recommends that a level term for recreational leases not be provided.

8. The Alaska Industrial Subdivision hearing panel recommends that in accord with the provisions of the lease, lessees should be encouraged to record expenses incurred in site preparation so that the "original condition" can be more adequately ascertained.

The Ad Hoc committee concurs. This recommendation is handled in the attached lease document.

9. The Alaska Industrial Subdivision hearing panel recommends that lease language should be clarified to remove any possible inconsistencies with 11 AAC 58.520 (Adjustment of Rental).

The Ad Hoc committee concurs.

10. The Alaska Industrial Subdivision hearing panel recommends eliminating the floating easement. The State could exercise the right of eminent domain to condemn. The condemnation would probably result in greater compensation for damages to the lessee, especially in view of the Supreme Court decision in State v. Hammer,

550 P.2d 830, thus the lease would be more attractive to the leasing market. Additionally, the language in the current lease is ambiguous as to damages compensable. This ambiguity only encourages litigation.

The Ad Hoc committee concurs. This has been accomplished in the attached lease form.

11. The Alaska Industrial Subdivision hearing panel states that, if its recommendations are adopted, the State would be assured a competitive position in the lease market, would encourage development of the leaseholds consistent with the intent of the leasing regulations, and would be equitable to the lessee. The hearing panel also believes the State should be able to obtain a good return on its land. Accordingly, the rental rate should be changed to reflect the removal of the undesirable aspects of the state lease.

The Ad Hoc committee concurs. Continuing to include rate as an appraisal element will accomplish this objective. This change is found in the attached lease form.

To provide a vehicle for arbitrating protests and appeals involving land transactions, the following is recommended:

1. The Division of Lands has had many protests from private parties over the past few years leading the committee to believe that a board of appeals is highly desirable and needed at this time. At present there exists no arbitration board or board of appeals to handle appeals allowed by Division of Lands regulations. The creation of a board of appeals would effect a responsive mechanism for solving most problem cases arising out of Division of Lands transactions that affect private parties. The board of appeals would be faster and less costly to private parties than legal recourse, which would still be available. The board is structured to maintain adequate expertise while attempting to eliminate bias in favor of the Division of Lands. The appeal board would substitute for the Commissioner in the present appeal process. (The Alaska Industrial Subdivision hearing panel also recommends such an appeal process.)

Section 9 of the attached bill would accomplish this.

The committee recommends the following to improve trust land management:

1. The committee believes that state trust lands (school, mental health, and university) are now and have been managed at low intensity. These lands may be returning only a fraction of their potential value that could be realized by a small, full-time management staff. The Division manages these lands at no charge to the various trust funds and receives no reimbursement for its services. Therefore, it has traditionally placed low priority on management of these lands. This committee recommends that the State Legislature authorize each trust board the authority to freely contract with any agency or private firm for the management of its lands for revenue production in accordance with the State's land act.

2. In order to provide a uniform 55 year limit for all long-term leases the committee recommends deletion of the 99 year provision found in 38.05.070(c) for school lands.

Section 6 of the attached bill would accomplish this.

V. APPENDIX A

LIST OF PUBLIC GIVING COMMENTS AT AD HOC MEETINGS

GRAHAM, Joe

AKERS, Merle (Anchorage International Airport Pilots' Association)

FORD, R. G. (Anchorage Camper Center--Alaska Industrial Subdivision)

DAVIS, Ken (Alaska Industrial Subdivision--school land lessee)

RICHARDSON, Phil (Talkeetna lessee)

BAER, Paul (International Airport Road--lessee/attorney)

NORENE, Larry (appraiser/broker)

SIMMONS, Errol (appraiser)

CUTLER, Dale (Chairman. Anchorage International Airport Pilots' Association)

BROWN, Leon (A&W Drive-In, Brown's Electrical--Alaska Industrial Subdivision)

FERRARA, Fred (appraiser, retained by Alaska Industrial Subdivision)

BEAMER, Mr.

HOGAN, L. L.

CHRISTOPHER, Jim (Alaska Industrial Subdivision)

WEEKS, Lloyd E.

LEDBETTER, Charles (recreational lease, Rocky Lake, Matanuska Valley)

GRAY, Brian Mark

MacNUTT, Lowell (Alaska Industrial Subdivision)

DAVIS, Ken (Alaska Industrial Subdivision)

PENNEY, Bob (Penland Subdivision)

HOGUE, Andrew (attorney)
BIELAWSKI, Joe (Alaska Industrial Subdivision)
MALONEY, Dennis
WILHOUR, Joe (Alaska Industrial Subdivision)
TROEH, Paul
VANDERMOLEN, John (HUD/FHA--Anchorage Insuring Office)
MEEKINS, Russ (Alaska Land & Leaseholders Association)
HURLEY, Katherine (State Board of Education)
HEINE, Darwin (School Trust Lands--Fairbanks)
KERNS, Dick (Department of Highways)
GEORGE, Al (University of Alaska--Fairbanks)
DENHAM, Bob (Pastor, 1st Church of the Nazarene)
FLAVIN, Frank (State Ombudsman)
RIGSBEE, Alberta
ROETMAN, Emmett
BAILY, Douglas (Attorney for Alaska Industrial Subdivision)
MORRIS, Lloyd

V. APPENDIX B.

Introduced: 3/22/77
Referred: Resources

1 IN THE HOUSE

BY THE RULES COMMITTEE BY
REQUEST OF THE GOVERNOR

2 HOUSE BILL NO. 383

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to state land; and providing for an
7 effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. AS 38.05.030 is amended by adding a new subsection to
10 read:

11 (f) Each trust for which the director exercises land management
12 functions shall be assessed the cost of that management which shall be
13 negotiated annually between the division and the respective trust
14 boards.

15 * Sec. 2. AS 38.05.055 is amended to read:

16 Sec. 38.05.055. SALE PROCEDURES. Except as provided in sec.
17 315(d) of this chapter, the sale shall be made at public auction to
18 the highest qualified bidder as determined by the director. An
19 aggrieved bidder may appeal to the commissioner within five days after
20 the sale for a review of the director's determination. The sale shall
21 be conducted by the director or his representative, and at the time of
22 sale the successful bidder shall deposit an amount determined by the
23 director but not less than five per cent. [EQUAL TO ONETENTH] of the
24 purchase price. The director or his representative shall immediately
25 issue a receipt containing a description of the land or property
26 purchased, the price bid, and the terms of sale, which receipt shall
27 be acknowledged in writing by the bidder. A contract of sale on a
28 form approved by the attorney general shall be signed by the purchaser
29 and, after approval of the commissioner, the contract shall also be

1 signed by the director on behalf of the state.

2 * Sec. 3. AS 38.05.065 is amended to read:

3 Sec. 38.05.065. TERMS OF CONTRACT OF SALE. The contract of sale
4 shall require the remainder of the purchase price to be paid over a
5 period of not more than 20 years, to be set for each sale by the
6 director. Installment payments plus interest must be set on the
7 level-payment basis. The interest rate to be charged on installment
8 payments is the prevailing rate on similar land transactions at the
9 time the contract is signed, as determined by the director, but in no
10 case may it be below five per cent per year or above the current usury
11 rate as set by AS 45.45.010(b) and (d) [IN ANNUAL INSTALLMENTS OF NOT
12 LESS THAN 10 PER CENT OF THE PURCHASE PRICE, WITH INTEREST AT THE RATE
13 OF NOT LESS THAN FIVE PER CENT A YEAR]. The director, with the con-
14 sent of the commissioner, may also impose conditions, limitations and
15 terms which he considers necessary and proper to protect the interest
16 of the state. Violations of any provision of this chapter or the
17 terms of the contract of sale subject the purchaser to appropriate
18 administrative and legal action, including but not limited to specific
19 performance, foreclosure, ejection, or other legal remedies in accord-
20 ance with applicable state law [LEGAL ACTION, INCLUDING A FORECLOSURE
21 ACTION IN ACCORDANCE WITH APPLICABLE STATE LAW].

22 * Sec. 4. AS 38.05.067(b) is amended to read:

23 (b) The director shall not sell the lands under this section at
24 less than their fair [APPRAISED] market value. The director shall
25 make regulations necessary to ensure that lands sold under this section
26 are for bona fide residential use and not for speculation.

27 * Sec. 5. AS 38.05.068(a) is amended to read:

28 (a) Before offering to the public any land which is subject to a
29 valid existing United States Forest Service permit in effect in a

1 state-selected area at the time the area was patented to the state, or
2 which is subject to a lease issued under sec. 87 of this chapter, the
3 director shall offer the land for sale to the permittee or his suc-
4 cessor in title, if he can be found, at not less than its fair [APPRAISED]
5 market value before offering to the general public.

6 * Sec. 6. AS 38.05.070(c) is amended to read:

7 (c) A lease may be issued for a period up to 55 years, if it
8 appears to be in the best interest of the state and if the commis-
9 sioner approves. A lease for a period in excess of 25 years must
10 grant the lessee an option entitling him to extend the term of the
11 lease for up to three consecutive five-year periods in addition to the
12 original term. If the commissioner determines that the land or a part
13 of it which is the subject of a grazing lease is not being used for
14 the purpose issued, the lease may be declared void. [HOWEVER, A NON-
15 RENEWABLE LEASE FOR SCHOOL LANDS MAY BE ISSUED FOR A PERIOD NOT TO
16 EXCEED 99 YEARS.]

17 * Sec. 7. AS 38.05.087(a) is amended to read:

18 (a) Before offering to the public any land for lease which is
19 subject to a valid existing United States Forest Service permit in
20 effect in a state-selected area at the time the area was patented to
21 the state, the director shall offer the land for leasing to the per-
22 mittee at not less than its fair [APPRAISED] market value before
23 offering it to the general public.

24 * Sec. 8. AS 38.05.105 is amended to read:

25 Sec. 38.05.105. PERIODIC RENTAL ADJUSTMENTS. (a) Each lease
26 shall stipulate that the annual rental payment is subject to adjust-
27 ment at five-year intervals and changes or adjustments shall be based
28 [PRIMARILY] on a reappraised annual rental value. Any increase due to
29 reappraisal may not exceed 100 per cent of the annual rental for the

1 preceding five-year period. However, if the director of the division
2 of lands determines that residential development is the best use for
3 the land, the reappraisal period may be lengthened or the readjustment
4 waived in accordance with regulations adopted by the commissioner.
5 Before a waiver of rental readjustment is issued, the land shall have
6 a current reappraisal. A waiver is valid only if residential develop-
7 ment actually occurs, and only if it is necessary for obtaining primary
8 long-term financing. The regulations adopted under this section shall
9 ensure that the state receives a fair return from the land.

10 (b) The 100 per cent limit on increases in annual rental applies
11 only to leases executed after the effective date of this Act and to
12 leases converted under sec. 106 of this chapter.

13 * Sec. 9. AS 38.05 is amended by adding new sections to article 3 to
14 read:

15 Sec. 38.05.106. CONVERSION OF LEASES. (a) Any person holding a
16 valid lease under secs. 70 - 106 of this chapter, or who is an approved
17 assignee of such a lessee under the terms of the lease, may convert
18 his lease to obtain the benefits described in (b) of this section,
19 which were not available to him at the time his lease was originally
20 entered, if he makes all payments due under the lease as computed
21 according to this section and is not in violation of any other lease
22 provision.

23 (b) Those lease benefits which must be made available to a
24 lessee qualifying under (a) of this section are all of those lease
25 provisions authorized to be included in new leases executed by the
26 state after the effective date of this Act.

27 (c) The effective annual rental value at conversion shall be
28 based on the most recent reappraisal if reappraisal was within two
29 years after the effective date of this Act. In all other cases, the

1 annual rental value at conversion shall be based on the next reappraisal
2 after conversion.

3 (d) The rate which is applied to the fair market value of lease
4 property to compute annual rental value shall be the current market
5 rate except the director may reduce it to not less than six per cent.

6 (e) Any lease conversion as to trust lands is effective only if
7 approved by the appropriate board of trustees.

8 (f) Applications for conversion must be made within three years
9 after the effective date of this Act.

10 Sec. 38.05.108. STATE BOARD OF LAND APPEALS; REGULATIONS. (a)
11 There is created in the department a Board of Land Lease Appeals of
12 five members, one of whom is the commissioner or his designated
13 representative. The other members of the board are to be appointed by
14 the governo from the general public, after consideration of the
15 desirability of legal, natural resource, or real estate training and
16 experience as criteria.

17 (b) The director shall provide administrative support for the
18 board.

19 (c) The terms of the public members are three years each, except
20 that the initial terms of one of the members first appointed under
21 this chapter shall be for one year and one member for two years. The
22 public members are entitled to compensation in the amount of \$50 a day
23 for each day or portion of a day spent in actual meeting or on authorized
24 official business incident to their duties, and to all transportation
25 and per diem allowances authorized by AS 39.20.180.

26 (d) Jurisdiction of the board extends to matters arising under
27 secs. 70 - 106 of this chapter related to the leasing of state land
28 other than for the extraction of natural resources from which an
29 appeal may be taken under statute or regulation to the commissioner

1 from a decision of the director. The board in all those appeals filed
2 after the effective date of this Act has the authority to hear evidence
3 and recommend decisions to the commissioner when the director's decision
4 is appealed to the commissioner. The commissioner,, after consultation
5 with the board, shall adopt regulations governing the procedures of
6 the board.

7 * Sec. 10. AS 38.05.310 is amended to read:

8 Sec. 38.05.310. NOTICE AND APPRAISAL. (a) No land may be sold
9 or leased, or a renewal lease issued [WITHOUT PUBLIC NOTICE,] except
10 in the case of an oil or gas or mineral lease, unless it has been
11 appraised within 120 [90] days before the date of [FIXED FOR THE] sale
12 or lease. For over-the-counter sale under (b) of this section, an
13 appraisal [WHEN LAND IS OFFERED AT PUBLIC SALE BUT IS NOT SOLD AND IS
14 AVAILABLE AT PRIVATE SALE, NO REAPPRAISAL] is required unless the
15 director finds [CONSIDERS] that a change in value of the lands has not
16 [MAY HAVE] occurred. A grazing lease may be granted to a lessee of
17 federal grazing lands without prior appraisal, if his federal lease
18 was cancelled to allow the state to select the lands under lease. No
19 land may be sold or leased for less than fair [THE APPROVED, APPRAISED]
20 market value, except as provided in secs. 315 and 320 of this chapter
21 and secs. 75 - 85 of this chapter. No land or interest in land may be
22 sold, leased, or otherwise disposed of without public notice.

23 (b) When land is offered at public sale but is not sold, it may
24 be available for sale over the counter. The director shall review the
25 list of parcels of land available on a quarterly basis and shall
26 certify that there has been no change in value since the last reapprai-
27 sal. If an increase in value occurs in any parcel, the director shall
28 withdraw that parcel from sale over the counter.

29 * Sec. 11. AS 38.05.345(a) is amended to read:

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(a) Public notice of an auction sale [, LEASE OR OTHER DISPOSAL] of land or interest in it shall be substantially as follows.

* Sec. 12. AS 38.05.345 is amended by adding a new subsection to read:

(e) Public notice of a sale, lease, or other disposal of land or an interest in it other than by auction, or notice of a classification or other action concerning land, shall conform to the requirements of sec. 305 of this chapter and of this subsection. That notice must comply with the provisions of (b) and (d) of this section, except that the disposal may be made more than five weeks following the last appearance of the published notice.

* Sec. 13. AS 38.05.365 is amended by adding a new paragraph to read:

(24) "market value" or "fair market value" means the price, estimated in terms of money, which the property would bring if exposed for a sale for a reasonable time in the open market, with a seller, willing but not forced to sell, and a buyer, willing but not forced to buy, both being fully informed of all the purposes for which the property is best adapted or could be used.

REVISED 3/23/77

V. APPENDIX C
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF LANDS
323 East Fourth Avenue
Anchorage, Alaska 99501

ADL NO. _____

LEASE AGREEMENT

THIS Lease agreement made and entered into this _____ day of _____, 19____, by and between the State of Alaska, through the Director of the Division of Lands, with the consent and approval of the Commissioner of the Department of Natural Resources, acting for and on its behalf under and pursuant to AS 38.05, as amended, and the regulations promulgated thereunder, as amended or hereafter amended, hereinafter referred to as the LESSOR; and _____ of _____ hereinafter referred to as the LESSEE:

WHEREAS, the Lessor has caused the lands herein demised to be appraised and such appraisal was made and approved on or after _____, 19____; and

WHEREAS, the Lessor has caused a notice of intent to lease the lands herein demised to be published as required by law or caused notices of intent to lease to be posted as required by law; and

WHEREAS, an auction of the herein demised property was held at the time and place designated by notice and said sale was approved by the Director of the Division of Lands, Department of Natural Resources, State of Alaska:

NOW THEREFOR, the Lessor has agreed to let and does hereby let and demise to the Lessee, and the Lessee has agreed to take and does hereby take from the Lessor the surface estate of all that lot, piece, or parcel of land more particularly bounded and described, as follows:

Located in the _____ Recording District, State of Alaska.

TO HAVE AND TO HOLD the said demised premises for a term of _____
() years commencing on the _____ day of _____, 19____, and ending at
12 o'clock midnight on the _____ day of _____, _____, unless
sooner terminated as hereinafter provided.

The Lessee shall pay to the Lessor rental as follows: Equal _____ payments,
in advance, on or before the _____ day of _____ of every year during
said term at the rate of _____
Dollars (\$ _____) per _____; such payments to be subject to adjustment
as hereinafter required from the effective date hereof, as provided herein.

It is agreed that each of the covenants, terms and agreements herein contained shall be binding upon the parties and upon their respective successors and assigns.

1. Appurtenances, and Encumbrances-- Lessor leases and grants to Lessee all easements, parking and loading rights, rights of ingress and egress, fixtures and appurtenances now or hereafter belonging or pertaining to said premises. The des-

cribed premises are leased, subject to patent restrictions, easements, rights-of-way, if any, zoning and building restrictions and statutes and governmental regulations now in effect or hereafter adopted by any governmental authority.

2. Payment of Taxes and Assessments-- Lessee agrees to pay to the public authorities charged with collection thereof, promptly as the same may become due and payable, all taxes, permit, inspection and license fees and other public charges, whether of a like or different nature, except for general and special assessments lawfully levied upon the leasehold estate and any buildings, structures, fixtures, improvements or leasehold interest now or hereafter located thereon, or arising in respect of the occupancy, use or possession of the leased Premises, and which are charged against and are, or may become, a lien during the term of this lease; and Lessee agrees to exhibit to Lessor, on demand receipts evidencing payment of all taxes, fees and other similar public charges so payable by Lessee. Lessee shall also pay all charges of water, sewer, gas, electricity, power or other public utility services rendered on or to the Premises during the term of this lease as such charges become due.

3. Documentation of Improvements-- Lessee must within 90 days of completion of any site improvements, including but not limited to clearing, leveling, excavation, and backfill, and exclusive of any structures, file with the lessor adequate and reasonable documentation of such improvements including any applicable costs and quantities. Such documentation is intended to aid in future determinations of the original condition of the Premises.

4. Notification and Late Payment Charge-- In the event lessee becomes 30 days delinquent in payments due, a late payment charge of 6% of such amount due shall be levied against the lease. Additionally, a charge for notification for payments 30 days late shall be made at the rate of \$5.00 for the first notice and \$20.00

for the second notice.

5. Permitted Uses— (a) The Lessee shall use the leased Premises for uses and purposes consistent with those cited in Attachment 1, and in conformance with applicable local zoning ordinances. At any time Lessee may request a change in permitted uses, provided that Lessee's existing or proposed use of the Premises is consistent with existing zoning. If the Lessor concurs with such change of permitted use, then this lease shall terminate, and a new lease, upon a form and containing terms, appraisal and rental rate applicable to the changed classification; shall be executed for the balance of the unexpired lease term, or renewal term if applicable, then remaining.

b. Lessee may request that part of the leased Premises be severed from the Premises for purposes of changing of that part for a use or uses not permitted under the then existing permitted uses of the Premises. If the Lessor concurs, then this lease shall terminate as to the part so severed, and a new lease, upon a form and containing terms, appraisal and rental rate applicable to the changed permitted uses; shall be executed for the balance of the unexpired lease term, or renewal term if applicable, then remaining. The annual rentals applicable to the original leased Premises shall be adjusted to reflect the effect of severance of the part permitted by this paragraph for the balance of the original lease term or the renewal term, if applicable. If severance of a portion of the Premises is permitted, Lessee shall comply with all state and local laws and ordinances regarding the subdivision of real property, and shall bear the expenses and costs attributable to survey, recording and other compliance with said laws and ordinances.

6. Compliance with Laws' Ordinance and Regulations— Lessee shall comply with all applicable laws, ordinances and regulations of duly constituted public au-

thorities now or hereafter in existence which in any manner affect the leased Premises or the sidewalks, alleys, streets, and ways adjacent thereto, or any buildings, structures, fixtures or improvements or the use thereof. Lessee further agrees that it will not permit any unlawful occupation, business or trade to be conducted on the Premises, or any use to be made thereof contrary to any law, ordinance or regulation applicable thereto.

The lessee, at its own cost and expense, shall keep the leased Premises and all improvements which at any time during the term of this lease may be situated thereon, in good maintenance, condition and repair during the entire term of this lease, and hereby expressly waives any right to make repairs to the Premises at the expense of Lessor which may be allowed by any statute or law in effect at the time of the execution of this lease or any amendment thereof, or by any other statute or law which may be hereafter passed during the term of this lease. The Lessee's rights under this Lease may be terminated by the Director, in whole or in part, if the leased Premises are used for a purpose unlawful under Federal or State law or regulation, or local Government ordinance as applicable.

7. Lessee's Rights of Occupancy and Use-- Lessee, when not in default of performance of any of its obligations hereunder, shall have the following rights, during the term of this Lease, from time to time and in such manner, and to such extent, as Lessee may in its sole judgment deem advisable, except where any of said rights is conditioned upon prior approval of Lessor: (a) The right to demolish, remove or otherwise dispose of any improvements presently or subsequently situated upon the leased Premises; (b) The right to erect, place, or install upon the leased Premises buildings, structures, and improvements as from time to time it shall deem advisable; (c) The right to make such alterations, additions and repairs to the leased Premises as it may desire.

8. Disposition of Improvements Upon Termination-- (a) All buildings, structures and permanent improvements, including any signs which are installed, placed or attached in or about the leased Premises by Lessee, shall remain the property of Lessee at the expiration or termination of this lease, or of any renewal term thereof. The lessee shall within 60 days after termination or expiration of the lease remove all improvements located on the leased Premises, provided that such removal will not cause injury or damage to the leased Premises; and further provided that the Lessor may extend the time for removing such improvements in a case where hardship is demonstrated. Following removal Lessee shall leave Premises in a safe and natural condition. The retiring lessee may, with the consent of the Lessor, sell his improvements to the succeeding lessee.

(b) If any improvements and/or chattels having an appraised value in excess of \$10,000.00, as determined by the Lessor, are not removed within the time allowed, such improvements and/or chattels shall, upon due notice to the Lessee, be sold at public sale under the direction of the Lessor. The proceeds of sale shall inure to the Lessee who placed such improvements and/or chattels on the lands after payment to the Lessor of all rents due and owing and expenses incurred in holding such sale. In case there are no other bidders at any such sale, the Lessor is authorized to bid on such improvements and/or chattels. The Lessor shall acquire all rights, both legal and equitable, that any other purchaser could acquire by reason of said sale and purchase.

(c) If any improvements and/or chattels having an appraised value of \$10,000.00 or less, as determined by the Lessor, are not removed within the time allowed, such improvements and/or chattels shall revert to, and absolute title shall vest in, the Lessor.

9. Freedom From Liens-- Lessee will not permit any mechanics', laborers', or

materialmen's liens to stand against the leased Premises or improvements for any labor or materials furnished to Lessee, or claimed to have been furnished to Lessee or to Lessee's agents, contractors, or sublessees, in connection with work of any character performed on said Premises or improvements by or at the direction or sufferance of Lessee; provided, however, that Lessee shall have the right to contest the validity or amount of any such lien or claimed lien. In the event of such contest, Lessee shall give to Lessor such reasonable security as may be demanded by Lessor to insure payment thereof and to prevent any purported sale, foreclosure or forfeiture of the premises or improvements by reason of such non-payment. Such security need not exceed one and one-half times the amount of such lien or such claim of lien. Lessee shall record such bond as contemplated by Section 34.35.072, Alaska Statutes upon Lessor's demand. Lessee shall immediately pay any judgment rendered on any proven claim of lien, together with all proper costs and charges, and shall have such lien released or judgment satisfied at Lessee's own expense. The State may file such notices of non-responsibility as it may deem necessary, pursuant to A.S. 34.35.065.

10. Lawful Use of Premises— The Lessee may use and occupy the leased Premises for any lawful purpose provided such purpose is allowed under Attachment 1 of this Lease.

11. Indemnity to Lessor— Lessee will indemnify and hold Lessor harmless from and against all claims and demands for loss or damage, including property damage, personal injury or wrongful death, arising out of or in connection with the use or occupancy of the Premises by Lessee or any other person under Lessee, and from any accident or fire on the Premises and from any nuisance made or suffered thereon, and from any failure by Lessee to keep the Premises in a safe condition, and Lessee will reimburse Lessor for all its costs and expenses, including reasonable attorneys' fees, incurred in the defense of any such claims; and Lessee will hold all goods,

materials, furniture, fixtures equipment, machinery and other property whatsoever on the Premises at the sole risk of Lessee, and will save Lessor harmless from any claim of loss or damage thereto by any cause whatsoever. If all or part of the improvements placed by Lessee on the demised premises are destroyed by fire, earthquake or other cause, Lessee shall remove the debris and clean up the affected area within 60 days of the occurrence of such destruction, and may surrender to Lessor this lease, together with any interest of Lessee and of any mortgagee in the remaining insurance proceeds and Lessee may thereby be relieved of any further obligation hereunder.

12. Default-- If Lessee at any time during the term or renewal term of this lease (and regardless of the pendency of any bankruptcy, reorganization, receivership, insolvency or other proceedings, in law, in equity or before any administrative tribunal, which has or might have the effect of preventing Lessee from complying with the terms of this lease) (a) shall fail to make payment of any installment of rent or of any other sum herein specified to be paid by Lessee, or (b) shall fail to observe or perform any of Lessee's other covenants, agreements or obligations hereunder, and if any such default shall not be cured as to (a) within ten days after Lessor shall have given Lessee written notice of such failure to make payment, or as to (b) within thirty (30) days after Lessor shall have given to Lessee written notice specifying such default or defaults, Lessee shall not have commenced diligently to cure such default; or if Lessee has filed a voluntary petition or has become subject to an involuntary petition under any provision of the Bankruptcy Act, 11 U.S.C. 701 et. seq; or if Lessee finally and without further possibility of appeal or review is adjudicated a bankrupt or insolvent; or if Lessee has a receiver or a Trustee appointed for all or substantially all of its business or assets on the ground of Lessee's insolvency; or if Lessee has itself appointed as debtor-in-possession in a proceeding for a reorganization or an arrangement; or if Lessee shall make an assignment for the benefit of its creditors, then in any such event Lessor shall have the right,

at its election, then or at any time thereafter, and while such default, defaults or events shall continue, to give Lessee written notice of Lessor's intention to terminate this lease and all of Lessee's rights hereunder, on the date specified in such notice, which date shall not be less than thirty (30) days after the date of giving of such notice; and on the date specified in such notice this lease and all rights granted Lessee hereunder shall terminate as fully as if the lease had then expired by its own terms; and Lessee hereby covenants to peaceably and quietly surrender to Lessor said leased Premises and all structures, buildings improvements and equipment located thereon, subject to paragraph 7 (a) above and to execute and deliver to Lessor such instrument or instruments which may be required by Lessor to properly evidence termination of Lessee's rights and interest hereunder.

In the event of termination of this lease as provided in this paragraph 12, Lessor shall have the right to repossess the leased Premises and such structures, buildings, improvements and equipment, thereon and subject to paragraph 5 above either with process of law or through any form of suit or proceeding, as well as the right to sue for and recover all rents and other sums accrued up to the time of such termination, and damages arising out of any breach on the part of Lessee, including damages for rent for the balance of the lease term not then accrued. Lessor shall also have the right, without taking possession of the premises or terminating this lease, to sue for and recover all rents and other sums, including damages, at any time and from time to time which may accrue hereunder as a result of any default of Lessee.

13. Condemnation— If the whole or any part of the demised premises shall be taken for any public or quasi-public use, under any statute or by right of eminent domain or private purchase in lieu thereof, by any public or quasi-public body vested with the power of eminent domain, then when possession shall be taken thereunder of the leased Premises, or any part thereof, the following provisions

shall control:

a. Taking of All Premises-- If all of the Premises are taken by condemnation the term of this lease and all rights of the Lessee hereunder shall immediately terminate, and the rent shall be adjusted as of the time of such termination so that Lessee shall have paid rent only up to the time of such taking. Lessor shall be entitled to the full condemnation proceeds, except that portion thereof attributable to the value of the buildings or improvements placed on the Premises by Lessee.

b. Taking of Substantial Part of Premises-- If the taking by condemnation reduces the ground area of the leased Premises by at least thirty percent (30%), or materially affects the use being made by the Lessee of the demised premises, Lessee shall have the right, by written notice to Lessor made not later than one hundred eighty (180) days after possession shall be taken, to elect to terminate or to not terminate this lease under the provisions set forth herein. If the election to terminate is made the provisions of (a) of this paragraph relating to the taking of the whole Premises shall govern. If the election not to terminate is made the lease shall continue and Lessor shall be entitled to the full condemnation proceeds except the portion thereof attributable to the value of the buildings or structural improvements placed on the Premises by Lessee; and rent at the existing rate and amount shall be adjusted as of the date of the taking of possession, and the rent for the balance of the term, except as modified from time to time under paragraph 1 of attachment 1 hereof, shall be reduced so that the new rent shall be that part of the former rent (before condemnation) which the unimproved value of the untaken Premises (appraised after the taking) bears to the unimproved value of the entire Premises immediately before the taking. Any dispute, controversy or claim arising out of or relating to the fixing of the new rent shall be settled by arbitration as provided herein.

c. Taking of Insubstantial Part of Premises— If the taking is of such an insubstantial portion of the ground area that the use being made by Lessee of the leased premises is not materially affected, the provisions of this paragraph regarding Lessee's election not to terminate shall govern.

14. Quiet Enjoyment— Provided Lessee is not in default hereunder, Lessor covenants that Lessee shall have peaceful and quiet enjoyment of the leased Premises without let or hindrance on the part of Lessor, and Lessor will warrant and defend Lessee in the peaceful and quiet enjoyment of the leased Premises.

15. Notices— All notices required or permitted under this agreement shall be made by certified or registered mail, postage prepaid, to the parties at the following addresses.

To The Lessor:

To The Lessee:

16. Rights or Remedies— Except as may be inconsistent with or contrary to any provision of this lease, no right or remedy herein conferred upon or reserved to Lessor shall be exclusive of any other right or remedy, and each and every right or remedy shall be cumulative and in addition to any other right or remedy given hereunder, or now or hereafter existing at law or in equity or by statute.

17. Waiver or Forebearance— The receipt of rent by the Lessor, with or without knowledge of any breach of the lease by the Lessee, or of any default on the part of the Lessee in the observance or performance of any of the conditions or covenants of this lease, shall not be deemed to be a waiver of any provision of this lease. No failure on the part of the Lessor to enforce any covenant or provision herein

contained, nor any waiver of any right hereunder by the Lessor, unless in writing, shall discharge or invalidate such term or covenant; nor shall any forbearance or written waiver affect the right of the Lessor to enforce any term or covenant in the event of any subsequent breach or default. The receipt by Lessor of rent or any other sum of money or the termination, in any manner, of the lease term or the giving by Lessor of any notice hereunder to effect such termination, shall not reinstate, continue, or extend any term herein leased, or destroy, or in any manner impair the validity of any such notice of termination as may have been given hereunder by the Lessor to the Lessee prior to the receipt of any such sum of money or other consideration, unless the contrary effect shall be expressed in writing and signed by the Lessor.

18. Inspection— Lessor shall, at all reasonable times have access to the Premises for the purpose of inspection.

19. Successors in Interest-- This Lease shall be binding upon and inure to the benefit of the respective heirs, successors in interest and assigns of the parties hereto.

20. Assignment or Subletting-- Lessee shall not sublet or assign the leased premises or any part thereof, without the prior written consent of Lessor to such subletting or assignment, which consent shall not be unreasonably withheld, subject to use provisions of this lease. However, Lessee, without prior authorization may assign this lease, or any part thereof, to a duly licensed and authorized lending institution for loan security purposes, provided that this right to assign shall not operate as a subordination of Lessor's rights hereunder, nor a subordination of its fee. Lessor agrees that upon receipt of application for assignment by Lessee, it will consent to or deny a proposed subletting or assignment by Lessee. No assignment or subletting of the Premises or any portion thereof by Lessee shall void Lessee's

obligation to pay the rent herein reserved for the full term of this sublease or any extensions thereof. Anything contrary in the foregoing notwithstanding, Lessee shall have the right to sublease all or any portion of the enclosed space in any building which Lessee may construct upon the leased Premises without prior written approval of Lessor.

21. Soil Conditions and Water Drainage-- Lessor makes no warranty and assumes no liability regarding the soil conditions or water drainage upon the leased premises.

22. Mineral Reservation-- The Lessor hereby expressly saves, excepts and reserves out of the grant hereby made, unto itself, its lessees, successors, and assigns forever, all oils, gases, coal, ores, minerals, fissionable materials, and fossils of every name, kind or description, and which may be in or upon said lands above-described, or any part thereof, and the right to explore the same for such oils, gases, coal, ores, minerals, fissionable materials and fossils. All coal, oil, gas and other minerals and all deposits of stone or gravel valuable for extraction or utilization, are excepted from the operation of a surface lease. Specifically, the lessee of the surface rights shall not sell or remove for use elsewhere any timber, stone, gravel, topsoil, or any other material valuable for building or commercial purposes; provided, however, that material required for the development of the leasehold may be used. It also hereby expressly saves and reserves out of the grant hereby made, unto itself, its lessee, successors, and assigns forever, the right to enter by itself, its or their agents, attorneys, and servants upon said lands, or any part or parts thereof, at any and all times, for the purpose of opening, developing, drilling and working mines or wells on these or other lands and taking out and removing therefrom all such oils, gases, coal, ores, minerals, fissionable materials and fossils; and to that end it further expressly reserves out of the grant hereby made, unto itself, its lessees, successors, and assigns forever, the right by

its or their agents, servants and attorneys at any and all times to erect, construct, maintain, and use all such buildings, machinery, roads, pipelines, powerlines, and railroads, sink such shafts, drill such wells, remove such soil, and to remain on said lands or any part thereof for the foregoing purposes and to occupy as much of said lands as may be necessary or convenient for such purposes, hereby expressly reserving to itself, its lessees, successors, and assigns, as aforesaid, generally all rights and power in, to and over said land, whether herein expressed or not, reasonably necessary or convenient to render beneficial and efficient the complete enjoyment of the property and rights hereby expressly reserved.

Provided, however, no rights shall be exercised by the Lessor or its mineral lessees, until provision has been made by the Lessor or its mineral lessees to pay to the Lessee of the land, upon which the rights herein reserved to the Lessor or its mineral lessees, are sought to be exercised, full payment for all damages sustained by said Lessee, by reason of entering upon said land; and provided that if said Lessee for any cause whatever refuses or neglects to settle said damages, the Lessor or its mineral lessees, or any applicant for a mineral lease or contract from the Lessor or its lessees for the purpose of prospecting for valuable minerals, or option contract or lease for mining coal or lease for extracting petroleum or natural gas, shall have the right, after posting a surety bond with the Director issued by a corporation qualified to do business in Alaska and licensed to sell insurance in Alaska, or a bond executed by one or more individual sureties approved by the Director, after due notice and opportunity to be heard, to be sufficient in amount and security to secure the said Lessee full payment for all such damages, to enter upon the land in the exercise of said reserved rights, and shall have the right to institute such legal proceedings in a court of competent jurisdiction wherein the land is situated, as may be necessary to determine the damages which the surface lessee of such lands may suffer.

23. Mortgage of Leasehold Interest of Tenant— A leasehold mortgagee, a beneficiary of a deed of trust, or a security assignee shall have and be subrogated to any and all rights of Lessee with respect to the curing of any default hereunder by Lessee. If the holder of any such mortgage, the beneficiary of any such deed of trust, or the security assignee shall give Lessor, before any default shall have occurred in the Lease, a written notice containing the name and post office address of such holder, Lessor shall thereafter give to such holder a copy of each notice of default by Lessee at the same time as any notice of default shall be given by Lessor to Lessee; and Lessor will not thereafter enter into any modification of this Lease without the prior written consent of such mortgagee, beneficiary or security assignee. If by reason of any default of Lessee, either this Lease or any renewal thereof shall be terminated at the election of Lessor prior to the stated expiration thereof, Lessor shall enter into a new Lease with the leasehold mortgagee, the beneficiary of a deed of trust, or the security assignee, for the unexpired portion of the lease term, effective as of the date of such termination, at the rent and on the terms herein contained, subject to the following conditions.

Mortgagees, beneficiary or security assignee shall do the following:

- a. make written request to Lessor for a new lease within forty (40) days after the date of such termination; and such written request shall be accompanied by payment to Lessor of all sums then due Lessor under this lease as if termination had not occurred but with such costs as are permitted under this Lease.
- b. pay to Lessor, at the time of the execution and delivery of such new Lease, any and all sums due thereunder, in addition to those which would at the time of the execution and delivery thereof be

due under this Lease but for such termination, and in addition thereto, any reasonable expenses, including legal and attorneys' fees to which Lessor shall have been subjected by reason of such default.

c. on or before the execution and delivery of such new Lease, perform all other conditions required to be performed by Lessee, to the extent that Lessee shall have failed to perform such conditions.

24. Arbitration— Any dispute between the parties arising under this lease or through the performance or non-performance of any term of this lease shall be first subject to resolution by arbitration, under the authority and procedures contained in Alaska Statutes 09.43. Appointment of an arbitrator shall be made by agreement between the parties. If no agreement can be reached, each party shall appoint an arbitrator, who shall by agreement between themselves appoint a third arbitrator. If any State Board of Land Appeals is later created which shall have jurisdiction over disputes which may arise under this lease, such Board shall assume jurisdiction and no requirement for arbitration shall thereafter be imposed during the pendency of such jurisdiction.

25. Integration and Modification— This document including attachments which by reference are made a part hereof, contains the entire agreement of the parties hereto. All negotiations, statements, representations, warranties, and assurances, whether oral or written, which are in any way related to the subject matter of this lease, and the performance by either party hereto, are merged and integrated into the terms of this document.

This Lease may not be modified nor amended except by a writing signed by both parties hereto, and any purported amendment or modification is without

effect until reduced to a writing signed by both parties hereto.

IN WITNESS WHEREOF the State of Alaska, Lessor, acting through the Director of the Division of Lands of the Department of Natural Resources, lawfully authorized thereunto, has caused these presents to be executed at Anchorage, Alaska, in duplicate, and the said Lessee has hereunto set his hand, agreeing to keep, observe and perform the rules and regulations promulgated under AS 38.05, as amended, the terms, conditions and provisions herein contained, on the Lessee's part to be kept, observed and performed.

Director, Division of Lands

APPROVED:

Trustee

COMMISSIONER, DEPARTMENT OF NATURAL RESOURCES
STATE OF ALASKA

UNITED STATES OF AMERICA)

LESSEE(S)

ss

State of Alaska)

THIS IS TO CERTIFY that on the _____ day of _____, 19____, before me, the undersigned Notary Public, personally appeared _____ known to me and known by me to be the _____ of the Division of Lands of the Department of Natural Resources, and acknowledged to me that he

executed the foregoing lease for an on behalf of said State, freely and voluntarily and for the use and purposes therein set forth.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Notary Public in and for the State of Alaska

My commission expires _____

UNITED STATES OF AMERICA)

ss

State of Alaska)

THIS IS TO CERTIFY that on this _____ day of _____, 19____, before me, the undersigned, a Notary Public in and for Alaska duly commissioned and sworn, personally appeared _____ to me personally known to be one of the persons described in and who executed the within instrument and the said _____ acknowledged to me that he signed and executed the same freely and voluntarily for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year of this certificate first above written.

Notary Public in and for the State of Alaska

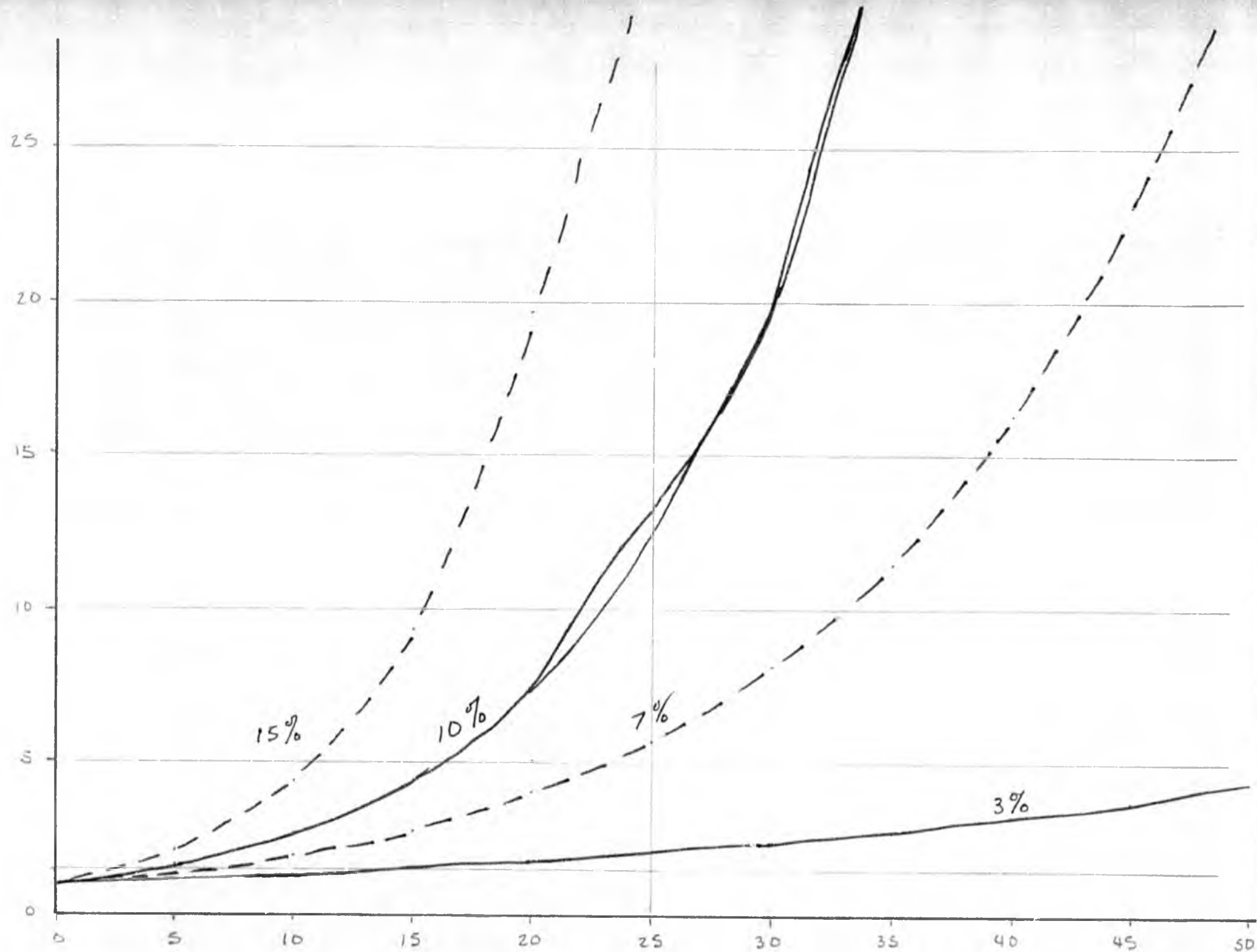
My commission expires _____

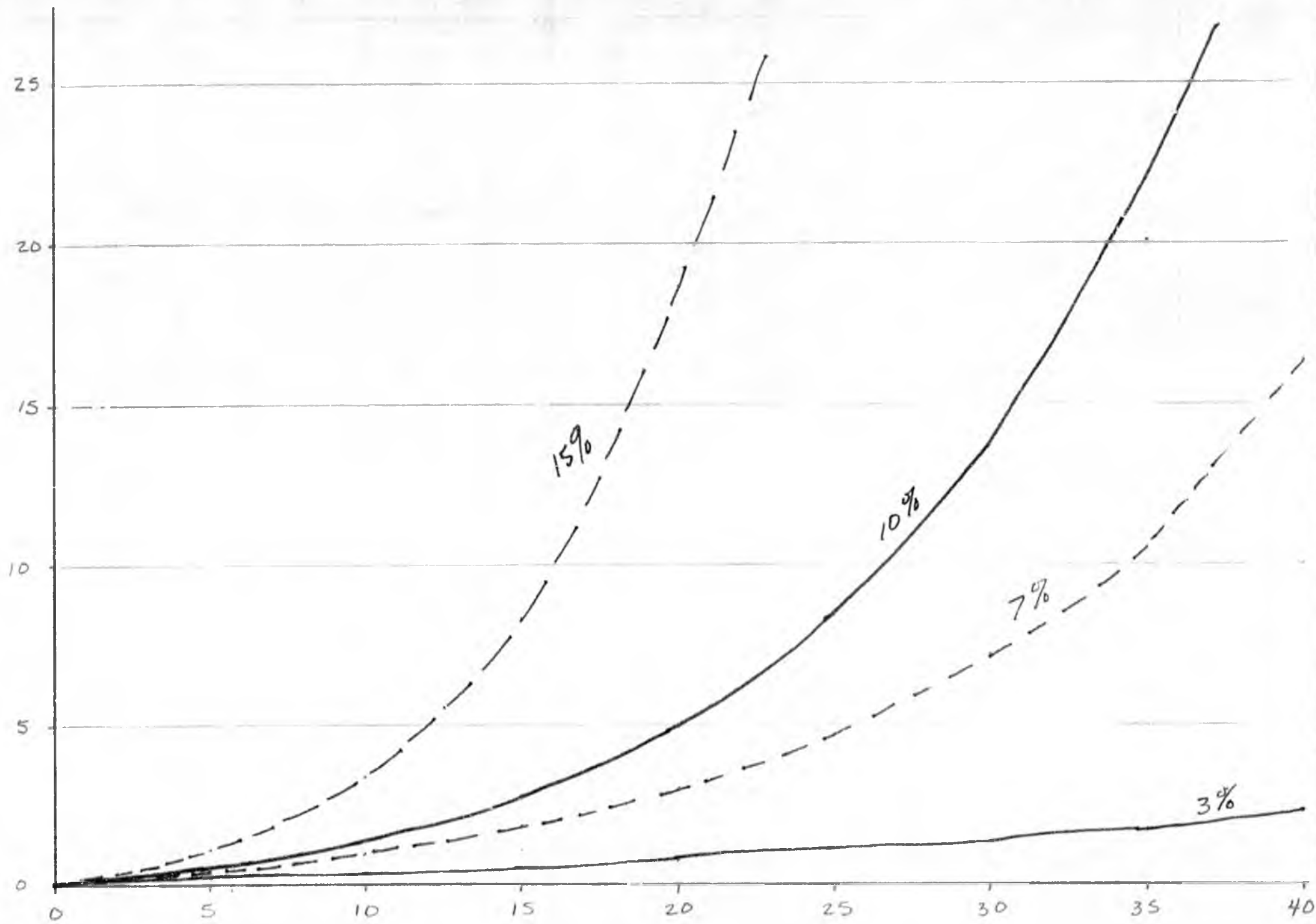
APPROVED AS TO FORM:

ATTORNEY GENERAL

By _____

Deputy Attorney General





COMPOUND INTEREST AND ANNUITY TABLE

**3.00 %
ANNUAL**

		Amount Of 1	Amount Of 1 Per Period	Sinking Fund Payment	Present Worth Of 1	Present Worth Of 1 Per Period	Periodic Payment To Amortize 1	Constant Annual Percent	Total Interest	Annual Add-on Rate		
		What a single \$1 deposit grows to in the future. The deposit is made at the beginning of the first period.	What a series of \$1 deposits grow to in the future. A deposit is made at the end of each period.	The amount to be deposited at the end of each period that grows to \$1 in the future.	What \$1 to be paid in the future is worth today. Value today of a single payment tomorrow.	What \$1 to be paid at the end of each period is worth today. Value today of a series of payments tomorrow.	The mortgage payment to amortize a loan of \$1. An annuity certain, payable at the end of each period, worth \$1 today.	The annual payment, including interest and principal, to amortize completely a loan of \$100.	The total interest paid over the term on a loan of \$1. The loan is amortized by regular periodic payments.	The average annual interest rate on a loan that is completely amortized by regular periodic payments.		
		$S = (1+i)^n$	$S_n = \frac{(1+i)^n - 1}{i}$	$\frac{1}{S_n} = \frac{i}{(1+i)^n - 1}$	$V^n = \frac{1}{(1+i)^n}$	$A_n = \frac{1 - V^n}{i}$	$\frac{1}{A_n} = \frac{i}{1 - V^n}$					
YR												YR
1	1	1.030000	1.000000	1.00000000	0.970874	0.970874	1.03000000	103.00	0.030000	3.00		1
2	2	1.060900	2.030000	0.49261084	0.942596	1.913470	0.52261084	52.27	0.045222	2.26		2
3	3	1.092727	3.090900	0.32353036	0.915142	2.828611	0.35353036	35.36	0.060591	2.02		3
4	4	1.125509	4.183627	0.23902705	0.888487	3.717098	0.26902705	26.91	0.076108	1.90		4
5	5	1.159274	5.309136	0.18835457	0.862609	4.579707	0.21835457	21.84	0.091773	1.84		5
6	6	1.194052	6.468410	0.15459750	0.837484	5.417191	0.18459750	18.46	0.107585	1.79		6
7	7	1.229874	7.662462	0.13050635	0.813092	6.230283	0.16050635	16.06	0.123544	1.76		7
8	8	1.266770	8.892336	0.11245639	0.789409	7.019692	0.14245639	14.25	0.139651	1.75		8
9	9	1.304773	10.159106	0.09843386	0.766417	7.786109	0.12843386	12.85	0.155905	1.73		9
10	10	1.343916	11.463879	0.08723051	0.744094	8.530203	0.11723051	11.73	0.172305	1.72		10
11	11	1.384234	12.807796	0.07807745	0.722421	9.252624	0.10807745	10.81	0.188852	1.72		11
12	12	1.425761	14.192030	0.07046209	0.701380	9.954004	0.10046209	10.05	0.205545	1.71		12
13	13	1.468534	15.617790	0.06402954	0.680951	10.634955	0.09402954	9.41	0.222384	1.71		13
14	14	1.512590	17.086324	0.05852634	0.661118	11.296073	0.08852634	8.86	0.239369	1.71		14
15	15	1.557967	18.598914	0.05376658	0.641862	11.937935	0.08376658	8.38	0.256499	1.71		15
16	16	1.604706	20.156881	0.04961085	0.623167	12.561102	0.07961085	7.97	0.273774	1.71		16
17	17	1.652848	21.761588	0.04595253	0.605016	13.166118	0.07595253	7.60	0.291193	1.71		17
18	18	1.702433	23.414435	0.04270870	0.587395	13.753513	0.07270870	7.28	0.308757	1.72		18
19	19	1.753506	25.116868	0.03981388	0.570286	14.323789	0.06981388	6.99	0.326464	1.72		19
20	20	1.806111	26.870374	0.03721571	0.553676	14.877475	0.06721571	6.73	0.344314	1.72		20
21	21	1.860295	28.676486	0.03487178	0.537549	15.415024	0.06487178	6.49	0.362307	1.73		21
22	22	1.916103	30.530780	0.03274739	0.521893	15.936917	0.06274739	6.28	0.380443	1.73		22
23	23	1.973587	32.442884	0.03081390	0.506692	16.443608	0.06081390	6.09	0.398720	1.73		23
24	24	2.032794	34.426470	0.02904742	0.491934	16.935542	0.05904742	5.91	0.417138	1.74		24
25	25	2.093778	36.459264	0.02742787	0.477606	17.413148	0.05742787	5.75	0.435687	1.74		25
26	26	2.166591	38.553042	0.02593829	0.463895	17.876842	0.05593829	5.60	0.454398	1.75		26
27	27	2.242128	40.709634	0.02456421	0.450189	18.327031	0.05456421	5.46	0.473234	1.75		27
28	28	2.287928	42.930923	0.02329323	0.437077	18.764108	0.05329323	5.33	0.492211	1.76		28
29	29	2.335666	45.218850	0.02211467	0.424346	19.188455	0.05211467	5.22	0.511325	1.76		29
30	30	2.427262	47.575416	0.02101926	0.411987	19.600441	0.05101926	5.11	0.530578	1.77		30
31	31	2.500080	50.002678	0.01999893	0.399987	20.000428	0.04999893	5.00	0.549967	1.77		31
32	32	2.575083	52.502759	0.01904662	0.388337	20.388766	0.04904662	4.91	0.569492	1.78		32
33	33	2.652335	55.077841	0.01815612	0.377026	20.765792	0.04815612	4.82	0.589152	1.79		33
34	34	2.731905	57.730177	0.01732196	0.366045	21.131837	0.04732196	4.74	0.608947	1.79		34
35	35	2.813862	60.462082	0.01653929	0.355383	21.487220	0.04653929	4.66	0.628875	1.80		35
36	36	2.898278	63.275944	0.01580379	0.345032	21.832252	0.04580379	4.59	0.648937	1.80		36
37	37	2.985227	66.174223	0.01511162	0.334983	22.167235	0.04511162	4.52	0.669130	1.81		37
38	38	3.074783	69.159449	0.01445934	0.325228	22.492462	0.04445934	4.45	0.689455	1.81		38
39	39	3.167027	72.234233	0.01384385	0.315754	22.808216	0.04384385	4.39	0.709910	1.82		39
40	40	3.262038	75.401260	0.01326238	0.306657	23.114772	0.04326238	4.33	0.730495	1.83		40
41	41	3.359899	78.663298	0.01271241	0.297628	23.412400	0.04271241	4.28	0.751209	1.83		41
42	42	3.460696	82.023196	0.01219167	0.288959	23.701359	0.04219167	4.22	0.772050	1.84		42
43	43	3.564517	85.483892	0.01169811	0.280543	23.981902	0.04169811	4.17	0.793019	1.84		43
44	44	3.671452	89.048409	0.01122986	0.272372	24.254274	0.04122986	4.13	0.814113	1.85		44
45	45	3.781596	92.719861	0.01078518	0.264439	24.518713	0.04078518	4.08	0.835333	1.86		45
46	46	3.895044	96.501457	0.01036254	0.256737	24.775449	0.04036254	4.04	0.856677	1.86		46
47	47	4.011895	100.306501	0.00996061	0.249250	25.024708	0.03996061	4.00	0.878144	1.87		47
48	48	4.132252	104.140839	0.00957777	0.241999	25.266707	0.03957777	3.96	0.899733	1.87		48
49	49	4.256219	108.004648	0.00921314	0.234950	25.501667	0.03921314	3.93	0.921444	1.88		49
50	50	4.383906	112.796867	0.00886649	0.228107	25.729764	0.03886649	3.89	0.943276	1.89		50

YR		Amount Of 1	Amount Of 1 Per Period	Sinking Fund Payment	Present Worth Of 1	Present Worth Of 1 Per Period	Periodic Payment To Amortize 1	Constant Annual Percent	Total Interest	Annual Add-on Rate	YR
		What a single \$1 deposit grows to in the future. The deposit is made at the beginning of the first period	What a series of \$1 deposits grow to in the future. A deposit is made at the end of each period.	The amount to be deposited at the end of each period that grows to \$1 in the future	What \$1 to be paid in the future is worth today. Value today of a single payment tomorrow.	What \$1 to be paid at the end of each period is worth today. Value today of a series of payments tomorrow.	The mortgage payment to amortize a loan of \$1. An annuity certain, payable at the end of each period, worth \$1 today.	The annual payment, including interest and principal, to amortize completely a loan of \$100	The total interest paid over the term on a loan of \$1. The loan is amortized by regular periodic payments	The average annual interest rate on a loan that is completely amortized by regular periodic payments	
		$S=(1+i)^n$	$S_n = \frac{(1+i)^n - 1}{i}$	$\frac{1}{S_n} = \frac{i}{(1+i)^n - 1}$	$V^n = \frac{1}{(1+i)^n}$	$A_n = \frac{1 - V^n}{i}$	$\frac{1}{A_n} = \frac{i}{1 - V^n}$				
1	1	1.040000	1.000000	1.000000000	0.961538	0.961538	1.040000000	104.00	0.040000	4.00	1
2	2	1.081600	2.040000	0.49019608	0.924556	1.886095	0.53019608	53.02	0.060392	3.02	2
3	3	1.124864	3.121600	0.32034854	0.888996	2.775091	0.36034854	36.04	0.081046	2.70	3
4	4	1.169859	4.246464	0.23549005	0.854804	3.629895	0.27549005	27.55	0.101960	2.55	4
5	5	1.216653	5.416323	0.18462711	0.821927	4.451822	0.22462711	22.47	0.123136	2.46	5
6	6	1.265319	6.632975	0.15076190	0.790315	5.242137	0.19076190	19.07	0.144571	2.41	6
7	7	1.315932	7.898294	0.12660961	0.759918	6.002055	0.16660961	16.67	0.166267	2.38	7
8	8	1.368569	9.214226	0.10852783	0.730690	6.732745	0.14852783	14.86	0.188223	2.35	8
9	9	1.423312	10.582795	0.09449299	0.702587	7.435332	0.13449299	13.45	0.210437	2.34	9
10	10	1.480244	12.006107	0.08329094	0.675564	8.110896	0.12329094	12.33	0.232909	2.33	10
11	11	1.539454	13.486351	0.07414904	0.649581	8.760477	0.11414904	11.42	0.255639	2.32	11
12	12	1.601032	15.026805	0.06655217	0.624597	9.385074	0.10655217	10.66	0.278626	2.32	12
13	13	1.665074	16.626838	0.06014373	0.600574	9.985648	0.10014373	10.02	0.301868	2.32	13
14	14	1.731676	18.291911	0.05466897	0.577475	10.563123	0.09466897	9.47	0.325366	2.32	14
15	15	1.800944	20.023588	0.04994110	0.555265	11.118387	0.08994110	9.00	0.349117	2.33	15
16	16	1.872981	21.824531	0.04582000	0.533908	11.652296	0.08582000	8.59	0.373120	2.33	16
17	17	1.947900	23.697512	0.04219852	0.513373	12.165669	0.08219852	8.22	0.397375	2.34	17
18	18	2.025817	25.645413	0.03899333	0.493628	12.659297	0.07899333	7.90	0.421880	2.34	18
19	19	2.106849	27.671229	0.03613862	0.474642	13.133939	0.07613862	7.62	0.446634	2.35	19
20	20	2.191123	29.778079	0.03358175	0.456387	13.590328	0.07358175	7.36	0.471635	2.36	20
21	21	2.278768	31.969202	0.03128011	0.438834	14.029160	0.07128011	7.13	0.496882	2.37	21
22	22	2.369919	34.247970	0.02919881	0.421955	14.451115	0.06919881	6.92	0.522374	2.37	22
23	23	2.464716	36.617889	0.02730906	0.405726	14.856842	0.06730906	6.74	0.548108	2.38	23
24	24	2.563304	39.082604	0.02558683	0.390121	15.246963	0.06558683	6.56	0.574084	2.39	24
25	25	2.665836	41.645908	0.02401196	0.375117	15.622080	0.06401196	6.41	0.600299	2.40	25
26	26	2.772470	44.311745	0.02256738	0.360689	15.982769	0.06256738	6.26	0.626752	2.41	26
27	27	2.883369	47.084214	0.02123854	0.346817	16.329586	0.06123854	6.13	0.653441	2.42	27
28	28	2.998703	49.967583	0.02001298	0.333477	16.663063	0.06001298	6.01	0.680363	2.43	28
29	29	3.118651	52.966286	0.01887993	0.320651	16.983715	0.05887993	5.89	0.707518	2.44	29
30	30	3.243398	56.084938	0.01783010	0.308319	17.292033	0.05783010	5.79	0.734903	2.45	30
31	31	3.373133	59.328335	0.01685535	0.296460	17.588494	0.05685535	5.69	0.762516	2.46	31
32	32	3.508059	62.701469	0.01594859	0.285058	17.873551	0.05594859	5.60	0.790355	2.47	32
33	33	3.648381	66.209527	0.01510367	0.274094	18.147646	0.05510367	5.52	0.818418	2.48	33
34	34	3.794316	69.857909	0.01431477	0.263552	18.411198	0.05431477	5.44	0.846702	2.49	34
35	35	3.946089	73.652225	0.01367732	0.253415	18.664613	0.05357732	5.36	0.875206	2.50	35
36	36	4.103933	77.598314	0.01288688	0.243609	18.908282	0.05288688	5.29	0.903928	2.51	36
37	37	4.268090	81.702246	0.01223957	0.234297	19.142579	0.05223957	5.23	0.932864	2.52	37
38	38	4.438813	85.970336	0.01163192	0.225285	19.367864	0.05163192	5.17	0.962013	2.53	38
39	39	4.616366	90.409160	0.01106083	0.216621	19.584486	0.05106083	5.11	0.991372	2.54	39
40	40	4.801021	95.025516	0.01052349	0.208289	19.792774	0.05052349	5.06	1.020940	2.55	40
41	41	4.993061	99.826536	0.01001738	0.200278	19.993052	0.05001738	5.01	1.050712	2.56	41
42	42	5.192784	104.819598	0.00954020	0.192575	20.185627	0.04954020	4.96	1.080888	2.57	42
43	43	5.400495	110.012382	0.00909889	0.185168	20.370795	0.04909889	4.91	1.110865	2.58	43
44	44	5.616515	115.412877	0.00868464	0.178046	20.548841	0.04868464	4.87	1.141240	2.59	44
45	45	5.841176	121.029392	0.00828246	0.171198	20.720040	0.04828246	4.83	1.171811	2.60	45
46	46	6.074823	126.870568	0.00788205	0.164614	20.884664	0.04788205	4.79	1.202574	2.61	46
47	47	6.317816	132.945390	0.00752189	0.158283	21.042938	0.04752189	4.76	1.233529	2.62	47
48	48	6.570528	139.263206	0.00718065	0.152195	21.195131	0.04718065	4.72	1.264671	2.63	48
49	49	6.833349	145.833734	0.00685712	0.146341	21.341472	0.04685712	4.69	1.295999	2.64	49
50	50	7.106683	152.667084	0.00655020	0.140713	21.482185	0.04655020	4.66	1.327510	2.66	50

COMPOUND INTEREST AND ANNUITY TABLE

**5.00 %
ANNUAL**

		Amount Of 1	Amount Of 1 Per Period	Sinking Fund Payment	Present Worth Of 1	Present Worth Of 1 Per Period	Periodic Payment To Amortize 1	Constant Annual Percent	Total Interest	Annual Add-on Rate		
		What a single \$1 deposit grows to in the future. The deposit is made at the beginning of the first period.	What a series of \$1 deposits grow to in the future. A deposit is made at the end of each period.	The amount to be deposited at the end of each period that grows to \$1 in the future.	What \$1 to be paid in the future is worth today. Value today of a single payment tomorrow.	What \$1 to be paid at the end of each period is worth today. Value today of a series of payments tomorrow.	The mortgage payment to amortize a loan of \$1. An annuity certain, payable at the end of each period, worth \$1 today.	The annual payment, including interest and principal, to amortize completely a loan of \$100.	The total interest paid over the term on a loan of \$1. The loan is amortized by regular periodic payments.	The average annual interest rate on a loan that is completely amortized by regular periodic payments.		
		$S = (1+i)^n$	$S_n = \frac{(1+i)^n - 1}{i}$	$\frac{1}{S_n} = \frac{i}{(1+i)^n - 1}$	$V^n = \frac{1}{(1+i)^n}$	$A_n = \frac{1 - V^n}{i}$	$\frac{1}{A_n} = \frac{i}{1 - V^n}$					
YR											YR	
1	1	1.050000	1.000000	1.00000000	0.952381	0.952381	1.05000000	105.00	0.050000	5.00	1	1
2	2	1.102500	2.050000	0.48780488	0.907029	1.859410	0.53780488	53.79	0.075810	3.78	2	2
3	3	1.157625	3.152500	0.31720856	0.863838	2.723248	0.36720856	36.73	0.101626	3.39	3	3
4	4	1.215506	4.310125	0.23201183	0.822702	3.545951	0.28201183	28.21	0.128047	3.20	4	4
5	5	1.276282	5.525631	0.18097480	0.783526	4.329477	0.23097480	23.10	0.154874	3.10	5	5
6	6	1.340096	6.801913	0.14701747	0.746215	5.075692	0.19701747	19.71	0.182105	3.04	6	6
7	7	1.407100	8.142008	0.12281982	0.710681	5.786373	0.17281982	17.29	0.209739	3.00	7	7
8	8	1.477455	9.549109	0.10472181	0.676839	6.463213	0.15472181	15.48	0.237775	2.97	8	8
9	9	1.551328	11.026564	0.09069008	0.644609	7.107822	0.14069008	14.07	0.266211	2.96	9	9
10	10	1.628895	12.577893	0.07950457	0.613913	7.721735	0.12950457	12.96	0.295046	2.95	10	10
11	11	1.710339	14.206787	0.07038889	0.584679	8.306414	0.12038889	12.04	0.324278	2.95	11	11
12	12	1.795856	15.917127	0.06282541	0.556837	8.863252	0.11282541	11.29	0.353905	2.95	12	12
13	13	1.885849	17.712983	0.05645577	0.530321	9.393573	0.1045577	10.65	0.383925	2.95	13	13
14	14	1.979932	19.598632	0.05102397	0.505068	9.898641	0.10102397	10.11	0.414336	2.96	14	14
15	15	2.078928	21.578564	0.04634229	0.481017	10.379658	0.09634229	9.64	0.445134	2.97	15	15
16	16	2.182875	23.657492	0.04226991	0.458112	10.837770	0.09226991	9.23	0.476319	2.98	16	16
17	17	2.292018	25.840366	0.03869914	0.436297	11.274066	0.08869914	8.87	0.507885	2.99	17	17
18	18	2.406619	28.132385	0.03554622	0.415521	11.689587	0.08554622	8.56	0.539832	3.00	18	18
19	19	2.526950	30.539004	0.03274501	0.395734	12.085321	0.08274501	8.28	0.572155	3.01	19	19
20	20	2.653298	33.065954	0.03024259	0.376889	12.462210	0.08024259	8.03	0.604852	3.02	20	20
21	21	2.785963	35.719252	0.02799611	0.358942	12.821153	0.07799611	7.80	0.637918	3.04	21	21
22	22	2.925261	38.505214	0.02597051	0.341850	13.163003	0.07597051	7.60	0.671351	3.05	22	22
23	23	3.071524	41.430475	0.02413682	0.325571	13.488574	0.07413682	7.42	0.705147	3.07	23	23
24	24	3.225100	44.501999	0.02247090	0.310068	13.798642	0.07247090	7.25	0.739302	3.08	24	24
25	25	3.386355	47.727099	0.02095246	0.295303	14.093945	0.07095246	7.10	0.773811	3.10	25	25
26	26	3.555673	51.113454	0.01966432	0.281241	14.375185	0.06956432	6.96	0.808672	3.11	26	26
27	27	3.733456	54.669126	0.01859186	0.267848	14.643034	0.06829186	6.83	0.843880	3.13	27	27
28	28	3.920129	58.402583	0.01771253	0.255094	14.898127	0.06712253	6.72	0.879431	3.14	28	28
29	29	4.116136	62.322712	0.01690455	0.242946	15.141074	0.06604551	6.61	0.915320	3.16	29	29
30	30	4.321942	66.438848	0.01616514	0.231377	15.372451	0.06505144	6.51	0.951543	3.17	30	30
31	31	4.538039	70.760790	0.01413212	0.220359	15.592811	0.06413212	6.42	0.988096	3.19	31	31
32	32	4.764941	75.298829	0.01328042	0.209860	15.802677	0.06328042	6.33	1.024973	3.20	32	32
33	33	5.003189	80.063771	0.01249004	0.199973	16.002549	0.06249004	6.25	1.062171	3.22	33	33
34	34	5.253348	85.068959	0.01175546	0.190355	16.192904	0.06175546	6.18	1.099605	3.23	34	34
35	35	5.516015	90.320307	0.01107171	0.181290	16.374194	0.06107171	6.11	1.137510	3.25	35	35
36	36	5.791816	95.830323	0.01043446	0.172657	16.546852	0.06043446	6.05	1.175640	3.27	36	36
37	37	6.081407	101.628139	0.00983979	0.164436	16.711287	0.05983979	5.99	1.214072	3.28	37	37
38	38	6.385477	107.709646	0.00928423	0.156605	16.867893	0.05928423	5.93	1.252801	3.30	38	38
39	39	6.704751	114.095023	0.00876462	0.149148	17.017041	0.05876462	5.88	1.291820	3.31	39	39
40	40	7.039980	120.799774	0.00827816	0.142040	17.159086	0.05827816	5.83	1.331126	3.33	40	40
41	41	7.391988	127.839763	0.00782229	0.135282	17.294368	0.05782229	5.79	1.370714	3.34	41	41
42	42	7.761580	135.231751	0.00739047	0.128840	17.423208	0.05739047	5.74	1.410578	3.36	42	42
43	43	8.149667	142.993339	0.00699333	0.122704	17.545012	0.05699333	5.70	1.450713	3.37	43	43
44	44	8.557150	151.143008	0.00661625	0.116801	17.662773	0.05661625	5.67	1.491115	3.39	44	44
45	45	8.985008	159.700158	0.00626173	0.111297	17.774070	0.05626173	5.63	1.531778	3.40	45	45
46	46	9.434258	168.686164	0.00592820	0.105997	17.880066	0.05592820	5.60	1.572607	3.42	46	46
47	47	9.905971	178.119422	0.00561421	0.100849	17.981016	0.05561421	5.57	1.613868	3.43	47	47
48	48	10.401270	188.025393	0.00531843	0.096142	18.077158	0.05531843	5.54	1.655285	3.45	48	48
49	49	10.921333	198.426663	0.00503965	0.091564	18.168722	0.05503965	5.51	1.696943	3.46	49	49
50	50	11.467400	209.347906	0.00477674	0.087204	18.255925	0.05477674	5.48	1.738837	3.48	50	50

COMPOUND INTEREST AND ANNUITY TABLE

1.00 %
ANNUAL

		Amount Of 1	Amount Of 1 Per Period	Sinking Fund Payment	Present Worth Of 1	Present Worth Of 1 Per Period	Periodic Payment To Amortize 1	Constant Annual Percent	Total Interest	Annual Add-on Rate	
		What a single \$1 deposit grows to in the future. The deposit is made at the beginning of the first period.	What a series of \$1 deposits grow to in the future. A deposit is made at the end of each period.	The amount to be deposited at the end of each period that grows to \$1 in the future.	What \$1 to be paid in the future is worth today. Value today of a single payment tomorrow.	What \$1 to be paid at the end of each period is worth today. Value today of a series of payments tomorrow.	The mortgage payment to amortize a loan of \$1. An annuity certain, payable at the end of each period, worth \$1 today.	The annual payment, including interest and principal, to amortize completely a loan of \$100.	The total interest paid over the term on a loan of \$1. The loan is amortized by regular periodic payments.	The average annual interest rate on a loan that is completely amortized by regular periodic payments.	
		$S = (1+i)^n$	$S_n = \frac{(1+i)^n - 1}{i}$	$\frac{1}{S_n} = \frac{i}{(1+i)^n - 1}$	$V^n = \frac{1}{(1+i)^n}$	$A_n = \frac{1 - V^n}{i}$	$\frac{1}{A_n} = \frac{i}{1 - V^n}$				
YR											YR
1	1	1.010000	1.000000	1.00000000	0.990099	0.990099	1.01000000	101.00	0.010000	1.00	1
2	2	1.020100	2.010000	0.49751244	0.980296	1.970395	0.50751244	50.76	0.015025	0.75	2
3	3	1.030301	3.030100	0.33002211	0.970590	2.940985	0.34002211	34.01	0.020066	0.67	3
4	4	1.040604	4.060401	0.24628109	0.960980	3.901966	0.25628109	25.63	0.025124	0.63	4
5	5	1.051010	5.101005	0.19603980	0.951466	4.853431	0.20603980	20.61	0.030199	0.60	5
6	6	1.061520	6.152015	0.16254837	0.942045	5.795476	0.17254837	17.26	0.035290	0.59	6
7	7	1.072136	7.213535	0.13862828	0.932718	6.728195	0.14862828	14.87	0.040398	0.58	7
8	8	1.082857	8.285671	0.12069029	0.923483	7.651678	0.13069029	13.07	0.045522	0.57	8
9	9	1.093685	9.368527	0.10674036	0.914340	8.566018	0.11674036	11.68	0.050663	0.56	9
10	10	1.104622	10.462213	0.09558208	0.905287	9.471305	0.10558208	10.56	0.055821	0.56	10
11	11	1.115668	11.566835	0.08645408	0.896324	10.367828	0.09645408	9.65	0.060995	0.55	11
12	12	1.126825	12.682503	0.07884879	0.887449	11.255077	0.08884879	8.89	0.066185	0.55	12
13	13	1.138093	13.809328	0.07241482	0.878663	12.133740	0.08241482	8.25	0.071393	0.55	13
14	14	1.149474	14.947421	0.06690117	0.869963	13.003703	0.07690117	7.70	0.076616	0.55	14
15	15	1.160969	16.096896	0.06212378	0.861349	13.865053	0.07212378	7.22	0.081857	0.55	15
16	16	1.172579	17.257864	0.05794460	0.852821	14.717874	0.06794460	6.80	0.087114	0.54	16
17	17	1.184304	18.430443	0.05425806	0.844377	15.562251	0.06425806	6.43	0.092387	0.54	17
18	18	1.196147	19.614748	0.05098205	0.836017	16.398269	0.06098205	6.10	0.097677	0.54	18
19	19	1.208109	20.810895	0.04805175	0.827740	17.226008	0.05805175	5.81	0.102983	0.54	19
20	20	1.220190	22.019004	0.04541531	0.819544	18.045553	0.05541531	5.55	0.108306	0.54	20
21	21	1.232392	23.239194	0.04303075	0.811430	18.856983	0.05303075	5.31	0.113646	0.54	21
22	22	1.244716	24.471586	0.04086372	0.803396	19.660379	0.05086372	5.09	0.119002	0.54	22
23	23	1.257163	25.716302	0.03888584	0.795442	20.455821	0.04888584	4.89	0.124374	0.54	23
24	24	1.269735	26.973465	0.03707347	0.787566	21.243387	0.04707347	4.71	0.129763	0.54	24
25	25	1.282432	28.243200	0.03540675	0.779768	22.023156	0.04540675	4.55	0.135169	0.54	25
26	26	1.295256	29.525631	0.03386880	0.772048	22.795204	0.04386888	4.39	0.140591	0.54	26
27	27	1.308209	30.820888	0.03244553	0.764404	23.559608	0.04244553	4.25	0.146029	0.54	27
28	28	1.321291	32.129097	0.03112444	0.756836	24.316443	0.04112444	4.12	0.151484	0.54	28
29	29	1.334504	33.450388	0.02989502	0.749342	25.065785	0.03989502	3.99	0.156956	0.54	29
30	30	1.347849	34.784892	0.02874811	0.741923	25.807708	0.03874811	3.88	0.162443	0.54	30
31	31	1.361327	36.132740	0.02767573	0.734577	26.542285	0.03767573	3.77	0.167948	0.54	31
32	32	1.374941	37.494000	0.02667089	0.727304	27.269589	0.03667089	3.67	0.173458	0.54	32
33	33	1.388690	38.869009	0.02572744	0.720103	27.989693	0.03572744	3.58	0.179005	0.54	33
34	34	1.402577	40.257699	0.02483997	0.712973	28.702666	0.03483997	3.49	0.184569	0.54	34
35	35	1.416603	41.660276	0.02400368	0.705914	29.408580	0.03400368	3.41	0.190129	0.54	35
36	36	1.430769	43.076870	0.02321431	0.698925	30.107505	0.03321431	3.33	0.195715	0.54	36
37	37	1.445076	44.507647	0.02246806	0.692005	30.799510	0.03246805	3.25	0.201318	0.54	37
38	38	1.459527	45.952724	0.02176150	0.685153	31.484663	0.03176150	3.18	0.206937	0.54	38
39	39	1.474123	47.412251	0.02109160	0.678370	32.163033	0.03109160	3.11	0.212572	0.55	39
40	40	1.488864	48.886373	0.02045560	0.671653	32.834686	0.03045560	3.05	0.218224	0.55	40
41	41	1.503752	50.375237	0.01985102	0.665003	33.499689	0.02985102	2.99	0.223892	0.55	41
42	42	1.518790	51.879899	0.01927563	0.658419	34.158108	0.02927563	2.93	0.229576	0.55	42
43	43	1.533978	53.397779	0.01872737	0.651900	34.810008	0.02872737	2.88	0.235277	0.55	43
44	44	1.549318	54.931757	0.01820441	0.645445	35.455454	0.02820441	2.83	0.240994	0.55	44
45	45	1.564811	56.481075	0.01770505	0.639055	36.094608	0.02770505	2.78	0.246727	0.55	45
46	46	1.580459	58.045885	0.01722775	0.632728	36.727236	0.02722775	2.73	0.252476	0.55	46
47	47	1.596263	59.626344	0.01677111	0.626483	37.353699	0.02677111	2.68	0.258242	0.55	47
48	48	1.612226	61.222608	0.01633384	0.620260	37.973959	0.02633384	2.64	0.264024	0.55	48
49	49	1.628348	62.834834	0.01591474	0.614119	38.588079	0.02591474	2.60	0.269822	0.55	49
50	50	1.644632	64.463182	0.01551273	0.608039	39.196118	0.02551273	2.56	0.275637	0.55	50

COMPOUND INTEREST AND ANNUITY TABLE

2.00 %
ANNUAL

YR	Amount Of 1	Amount Of 1 Per Period	Sinking Fund Payment	Present Worth Of 1	Present Worth Of 1 Per Period	Periodic Payment To Amortize 1	Constant Annual Percent	Total Interest	Annual Add-on Rate	YR
	What a single \$1 deposit grows to in the future. The deposit is made at the beginning of the first period.	What a series of \$1 deposits grow to in the future. A deposit is made at the end of each period.	The amount to be deposited at the end of each period that grows to \$1 in the future.	What \$1 to be paid in the future is worth today. Value today of a single payment tomorrow.	What \$1 to be paid at the end of each period is worth today. Value today of a series of payments tomorrow.	The mortgage payment to amortize a loan of \$1. An annuity certain, payable at the end of each period, worth \$1 today.	The annual payment, including interest and principal, to amortize completely a loan of \$100.	The total interest paid over the term on a loan of \$1. The loan is amortized by regular periodic payments.	The average annual interest rate on a loan that is completely amortized by regular periodic payments.	
	$S = (1+i)^n$	$S_n = \frac{(1+i)^n - 1}{i}$	$\frac{1}{S_n} = \frac{i}{(1+i)^n - 1}$	$V^n = \frac{1}{(1+i)^n}$	$A_n = \frac{1 - V^n}{i}$	$\frac{1}{A_n} = \frac{i}{1 - V^n}$				
1	1.020000	1.000000	1.00000000	0.980392	0.980392	1.02000000	102.00	0.020000	2.00	1
2	1.040400	2.020000	0.49504950	0.961169	1.941561	0.51504950	51.51	0.030099	1.50	2
3	1.061208	3.060400	0.32675467	0.942322	2.883883	0.34675467	34.68	0.040264	1.34	3
4	1.082432	4.121608	0.24262375	0.923845	3.807729	0.26262375	26.27	0.050495	1.26	4
5	1.104081	5.204040	0.19215839	0.905731	4.713460	0.21215839	21.22	0.060792	1.22	5
6	1.126162	6.308121	0.15852581	0.887971	5.601431	0.17852581	17.86	0.071155	1.19	6
7	1.148686	7.434283	0.13451196	0.870560	6.471991	0.15451196	15.46	0.081584	1.17	7
8	1.171659	8.582969	0.11650980	0.853490	7.325481	0.13650980	13.66	0.092078	1.15	8
9	1.195093	9.754628	0.10251544	0.836755	8.162237	0.12251544	12.26	0.102639	1.14	9
10	1.218994	10.949721	0.09132653	0.820348	8.982585	0.11132653	11.14	0.113265	1.13	10
11	1.243374	12.168715	0.08217794	0.804263	9.786848	0.10217794	10.22	0.123957	1.13	11
12	1.268242	13.412090	0.07455960	0.788493	10.575341	0.09455960	9.46	0.134715	1.12	12
13	1.293607	14.680332	0.06811835	0.773033	11.348374	0.08811835	8.82	0.145539	1.12	13
14	1.319479	15.973938	0.06260197	0.757875	12.106249	0.08260197	8.27	0.156428	1.12	14
15	1.345868	17.293417	0.05782547	0.743015	12.849264	0.07782547	7.79	0.167382	1.12	15
16	1.372786	18.639285	0.05365013	0.728446	13.577709	0.07365013	7.37	0.178402	1.12	16
17	1.400241	20.012071	0.04996984	0.714163	14.291872	0.06996984	7.00	0.189487	1.11	17
18	1.428246	21.412312	0.04670210	0.700159	14.992031	0.06670210	6.68	0.200638	1.11	18
19	1.456811	22.840559	0.04378177	0.686431	15.678462	0.06378177	6.38	0.211854	1.12	19
20	1.485947	24.297370	0.04115672	0.672971	16.351433	0.06115672	6.12	0.223134	1.12	20
21	1.515666	25.783317	0.03878477	0.659776	17.011209	0.05878477	5.88	0.234480	1.12	21
22	1.545980	27.298984	0.03663140	0.646839	17.658048	0.05663140	5.67	0.245891	1.12	22
23	1.576899	28.844963	0.03466810	0.634156	18.292204	0.05466810	5.47	0.257366	1.12	23
24	1.608437	30.421862	0.03287110	0.621721	18.913928	0.05287110	5.29	0.268906	1.12	24
25	1.640606	32.030300	0.03122044	0.609531	19.523456	0.05122044	5.13	0.280511	1.12	25
26	1.673418	33.670906	0.02969923	0.597579	20.121036	0.04969923	4.97	0.292180	1.12	26
27	1.706886	35.344324	0.02829309	0.585862	20.706898	0.04829309	4.83	0.303913	1.13	27
28	1.741024	37.051210	0.02698967	0.574375	21.281272	0.04698967	4.70	0.315711	1.13	28
29	1.775845	38.792235	0.02577836	0.563112	21.844385	0.04577836	4.58	0.327572	1.13	29
30	1.811362	40.568079	0.02464992	0.552071	22.398456	0.04464992	4.47	0.339498	1.13	30
31	1.847589	42.379441	0.02359635	0.541246	22.937702	0.04359635	4.36	0.351487	1.13	31
32	1.884541	44.227030	0.02261061	0.530633	23.468335	0.04261061	4.27	0.363539	1.14	32
33	1.922231	46.111670	0.02168653	0.520229	23.988564	0.04168653	4.17	0.375656	1.14	33
34	1.960676	48.033802	0.02081867	0.510028	24.498592	0.04081867	4.09	0.387835	1.14	34
35	1.999890	49.994478	0.02000221	0.500028	24.998619	0.04000221	4.01	0.400077	1.14	35
36	2.039887	51.994367	0.01923285	0.490223	25.488842	0.03923285	3.93	0.412383	1.15	36
37	2.080685	54.034255	0.01850678	0.480611	25.969453	0.03850678	3.86	0.424751	1.15	37
38	2.122299	56.114940	0.01782057	0.471187	26.440641	0.03782057	3.79	0.437182	1.15	38
39	2.164745	58.237238	0.01717114	0.461948	26.902589	0.03717114	3.72	0.449675	1.15	39
40	2.208040	60.401983	0.01655575	0.452890	27.356479	0.03655575	3.66	0.462230	1.16	40
41	2.252200	62.610023	0.01597188	0.444010	27.799489	0.03597188	3.60	0.474847	1.16	41
42	2.297244	64.862223	0.01541729	0.435304	28.234794	0.03541729	3.55	0.487526	1.16	42
43	2.343189	67.159468	0.01488993	0.426789	28.661562	0.03488993	3.49	0.500267	1.16	43
44	2.390053	69.502657	0.01438794	0.418401	29.079963	0.03438794	3.44	0.513069	1.17	44
45	2.437854	71.892710	0.01390962	0.410197	29.490160	0.03390962	3.40	0.525933	1.17	45
46	2.486611	74.330564	0.01345342	0.402154	29.892314	0.03345342	3.36	0.538857	1.17	46
47	2.536344	76.817176	0.01301792	0.394268	30.286582	0.03301792	3.31	0.551842	1.17	47
48	2.587070	79.353519	0.01260184	0.386538	30.673120	0.03260184	3.27	0.564888	1.18	48
49	2.638812	81.940590	0.01220396	0.378948	31.052078	0.03220396	3.23	0.577994	1.18	49
50	2.691588	84.579401	0.01182321	0.371523	31.423608	0.03182321	3.19	0.591160	1.18	50

Ken Cain - Real Estate Service - of Alaska

3/25/77

274-7636

State normally charges 6% rate -
last few years 8%

West coast ports - 7-10% w/ 5 year re-eval

Port of Anch rec: 8-10%

re-leasing can lead to a large cost bonus

- but valuation can be increased by lessor's efforts
chance to have reappraisal or ^{reassignment} [re-eval] of lease

study { 1970² - 1978⁶ [70-100%]
comm, resid 80%; indus 75-76 = 63%
'74 + '75 were biggest increases
const \pm - 8% / yr growth

60's	2-3% / yr	COL increase
60's	10% / yr	land "
70's	7% / yr	COL mer
70's	15% / yr	land "

} historic
\$