

COMMUTATION INSTRUCTIONS

The following examples illustrate various methods of commuting permanent disability and life pension benefits. Examples A, B and C apply to permanent disability and utilize Table 1, "Present Value of Fixed Annuity at 3% Interest". Examples D, E and F apply to life pension and utilize Tables 2 and 3 (for males and females respectively), "Present Value of Lifetime Annuity at 3% Interest..."

EXAMPLE A: COMMUTATION OF ALL REMAINING PD

In this example, all PD due for the period after the date of commutation is commuted.

Assumed facts for Example A:

Date of injury: 4/10/96
 PD commencement date: 2/20/98
 Date of commutation (DOC): 5/14/99

PD rating: 65%
 Weekly PD rate: \$164
 Number of weeks of indemnity corresponding to 65% PD: 386.25

1)	Determine weeks of PD remaining after date of commutation (DOC).	
	a) #days from PD commencement through DOC inclusive.....	449
	b) Divide by 7 days/week.....	<u>÷ 7</u>
	c) #weeks from PD commencement through DOC.....	64.1429
	d) Total weeks of PD	386.2500
	e) Subtract weeks elapsed through DOC (from 1c).....	<u>- 64.1429</u>
	f) Weeks of PD remaining after date of commutation.....	322.1071
2)	Determine PV of weeks of PD remaining after DOC (1f).	
	a) PV of #weeks just above 1f* (PV of 323 wks).....	295.0041
	b) Subtract next lower PV from table* (PV of 322 wks).....	<u>-294.1718</u>
	c) Difference of 2a and 2b.....	.8323
	d) Multiply by fractional portion of 1f.....	<u>× .1071</u>
	e) PV of fractional week.....	.0891
	f) Add 2b	<u>+ 294.1718</u>
	g) PV of weeks remaining after DOC.....	294.2609

* Values for 2a and 2b taken from PV column of Table 1.

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(Example A continued)

- 3) Determine commuted value of all PD due for period after DOC.
- | | | |
|----|--|--------------|
| a) | PV of weeks remaining after DOC (from 2g)..... | 294.2609 |
| b) | Multiply by PD rate..... | <u>× 164</u> |
| c) | Commuted value of all PD due for period after DOC..... | \$48,258.79 |

Summary of Example A:

- On date of commutation (DOC), \$48,258.79 would be due and payable. This is the commuted value of all remaining PD. If payment is made at a later date, interest at 10% per annum is due for the period from DOC to date of actual payment. For example, if the payment in this instance is made on 5/26/99, i.e. twelve days after the date of commutation, interest of \$158.66 would be due calculated as follows: $48,258.79 \times 12 \times .1 \div 365^*$.

* The formula for calculation of interest is:
 (Commuted value) X (#Days between DOC and payment date) X .1 ÷ 365

EXAMPLE B: COMMUTATION OF PD "OFF THE FAR END" TO PRODUCE A SPECIFIC LUMP SUM

In this example, sufficient monies are to be commuted off the far end of the PD award to produce a payment on the date of commutation of \$11,500. All facts are identical to those used in Example A. The calculation of the number of weeks of PD remaining after DOC used in this example is illustrated in step 1 of Example A. The calculation of the PV of weeks remaining after DOC used in this example is illustrated in step 2 of Example A.

Assumed facts:

Date of injury: 4/10/96
 PD commencement date: 2/20/98
 Date of commutation (DOC): 5/14/99

PD rating: 65%
 Weekly PD rate: \$164
 Number of weeks of indemnity corresponding to 65% PD: 386.25

Weeks of PD remaining after DOC (1f from Example A): 322.1071
 PV of weeks remaining after DOC (2g from Example A): 294.2609

- 1) Determine PV (at \$1/week) of amount to be commuted.
- | | | |
|----|----------------------------------|--------------|
| a) | Amount to be commuted..... | 11,500 |
| b) | Divide by weekly PD rate..... | <u>÷ 164</u> |
| c) | PV of amount to be commuted..... | 70.1220 |

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(Example B continued)

- 2) Determine PV of weeks remaining after commutation off far end.
- | | | |
|----|---|------------------|
| a) | PV of weeks remaining after DOC (2g from Ex. A)..... | 294.2609 |
| b) | Subtract PV of amount to be commuted (1c from above)..... | <u>- 70.1220</u> |
| c) | PV of weeks remaining after commutation off far end..... | 224.1389 |
- 3) Determine number of weeks of PD remaining after commutation off far end.
- | | | |
|----|--|-------------------|
| a) | PV just above 2c* (corresponding to 240 wks PD)..... | 224.2725 |
| b) | Subtract PV just below 2c* (corresp. to 239 wks PD)..... | <u>- 223.3996</u> |
| c) | Difference of 3a and 3b (PV of 240th week)..... | .8729 |
- *Values for 3a and 3b taken from PV column of Table 1.
- | | | |
|----|---|-------------------|
| d) | PV of weeks remaining after commut. off far end (2c)..... | 224.1389 |
| e) | Subtract 3b (PV of 239 weeks)..... | <u>- 223.3996</u> |
| f) | Difference of 3d and 3e..... | .7393 |
| g) | Divide by 3c (PV of 240th week)..... | <u>÷ .8729</u> |
| h) | Proportional amount of 240th week..... | .8469 |
| i) | Add to 239 weeks..... | <u>+ 239.0000</u> |
| j) | #weeks PD remaining after commutation off far end..... | 239.8469 |
- 4) Determine amount of PD due after commutation off far end.
- | | | |
|----|---|--------------|
| a) | #weeks PD remaining after commutation off far end (3j)..... | 239.8469 |
| b) | Multiply by PD rate..... | <u>× 164</u> |
| c) | PD still owed for period after DOC..... | \$39,334.89 |
- 5) Determine number of weeks of PD eliminated from the far end.
- | | | |
|----|--|-------------------|
| a) | # weeks PD before commut. off far end (1f from Ex. A)..... | 322.1071 |
| b) | Subtract #weeks PD remaining after commut. (3j)..... | <u>- 239.8469</u> |
| c) | #weeks PD eliminated from far end..... | 82.2602 |

Summary of Example B:

- On date of commutation (DOC), \$11,500 would be due and payable. If payment is made after the DOC, interest is due at 10% per annum. See Summary of Example A for interest calculation.
- Following the payment of \$11,500, the claims administrator would still owe 239.8469 weeks of PD (3j) payable on a biweekly basis in the total amount of \$39,334.89 (4c).
- The number of weeks of PD eliminated from the far end as a result of the commutation would be 82.2602 (5c).

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EXAMPLE C: COMMUTATION OF PD BY UNIFORM REDUCTION OF PAYMENTS

In this example, sufficient monies are commuted by uniform reduction of all future payments of PD to produce a payment on the date of commutation of \$11,500. All facts from Example A apply here. The calculation of number of weeks of PD remaining after DOC used in this example is illustrated in step 1 of Example A. The calculation of PV of remaining weeks used in this example is illustrated in step 2 of Example A.

Assumed facts:

Date of injury: 4/10/96
 PD commencement date: 2/20/98
 Date of commutation (DOC): 5/14/99

PD rating: 65%
 Weekly PD rate: \$164
 Number of weeks of indemnity corresponding to 65% PD: 386.25

Lump sum to be paid on DOC: \$11,500
 Number of weeks of PD remaining after DOC (1f from Example A): 322.1071
 PV of weeks of PD remaining after DOC (2g from Ex. A): 294.2609

- 1) Determine amount of reduction required to produce lump sum

a)	Amount desired to be commuted.....	\$11,500
b)	Divide by PV of remaining weeks (2g from Ex. A).....	$\div 294.2609$
c)	Amount of reduction after rounding to nearest whole cent.....	<u>\$39.08</u>

- 2) Determine new PD rate after reduction

a)	Weekly PD rate	164.00
b)	Subtract amount of reduction (1c).....	<u>- 39.08</u>
c)	New PD rate after reduction.....	\$124.92

- 3) Determine amount of PD still owed for period after DOC

a)	#weeks of PD remaining after DOC (1f from Example A).....	322.1071
b)	Multiply by new PD rate after reduction (2c).....	<u>$\times 124.92$</u>
c)	Amount of PD still owed for period after DOC.....	\$40,237.62

Summary of Example C:

- On date of commutation (DOC), \$11,500 would be due and payable. If payment is made after DOC, interest is due at 10% per annum. See Summary of Example A for interest calculation.
- As a result of the commutation, payments for the period following the DOC would be due at the reduced weekly rate of \$124.92 (2c).
- Following the payment of \$11,500, the balance of PD benefits owed would be 322.1071 weeks payable on a biweekly basis in the total amount of \$40,237.62 (3c).

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EXAMPLE D - COMMUTATION OF ALL REMAINING LIFE PENSION AFTER LIFE PENSION HAS COMMENCED

In this example, the commutation occurs after the commencement of life pension. On the date of commutation, all life pension indemnity owed for the period thereafter is commuted.

Assumed facts for Example D:

Date of birth (DOB): 8/25/45
 Date of injury: 4/10/87
 Life pension commencement date: 3/21/98
 Date of commutation: 5/14/99

Life pension rate: \$33.92
 Gender: male

1) Determine exact age on date of commutation.

a)	Number of days from DOB through DOC*	19620
b)	Divide by number of days per year	<u>÷ 365.24</u>
c)	Exact age on date of commutation	53.718

* Note that in determining exact age, the actual date of birth is not counted as the first day of the period. That is, an individual does not become one day old until the day after the DOB. This differs from the determination of the number of days for a period of benefits when the commencement date is counted as the first day of the period. See, for example, step 1a of Example A.

2) Determine PV of life pension as of exact age on DOC

a)	PV for age in table below 1c* (age 53)	847.65
b)	PV for age in table above 1c (age 54)*	<u>- 827.23</u>
c)	Difference of 2a and 2b	20.42
d)	Multiply by fractional portion of age from 1c	<u>× .718</u>
e)	Interpolation adjustment for 2d	14.66
f)	PV for age in table below 1c* (from 2a above)	847.65
g)	Subtract 2e	<u>- 14.66</u>
h)	PV of life pension as of exact age on DOC	832.99

* Value taken from column titled "Immed." in Table 2.

3) Determine commuted value of all life pension indemnity due after DOC

a)	PV of life pension as of exact age on DOC (from 2h)	832.99
b)	Multiply by life pension rate	<u>× 33.92</u>
c)	Commutated value of all life pension due after DOC	\$28,255.02

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(Example D continued)

Summary of Example D:

- On date of commutation, \$28,255.02, the commuted value of all life pension indemnity for the period after DOC, would be due and payable(3c). No further life pension indemnity would be due. If payment was made after DOC, interest would be due at 10% per annum. See Summary of Example A for interest calculation.

EXAMPLE E - COMMUTATION OF ALL LIFE PENSION INDEMNITY PRIOR TO COMMENCEMENT OF LIFE PENSION

In this example, the commutation of all life pension is done prior to commencement of life pension while the injured worker is still receiving PD. Calculation of exact age at DOC used in this example is illustrated in step 1 of Example†D.

Assumed facts for Example E:

Date of birth: 8/25/45
 Date of injury: 4/10/96
 PD commencement: 11/15/97
 Date of commutation (DOC): 5/14/99

Total weeks of PD: 525.50 (based on 81% PD rating)
 Life pension rate: \$65.42
 Gender: female
 Exact age on DOC (from 1c of Example D): 53.718

- 1) Determine number of years between date of commutation (DOC) and commencement of life pension.

a)	Total weeks of PD.....	525.5
b)	Multiply by 7 days per week.....	<u>× 7</u>
c)	Total days of PD.....	3678.5
d)	Subtract #days from PD commence through DOC inclusive...	<u>- 546.0</u>
e)	Number of days from DOC to LP commencement.....	3132.5
f)	Divide by 365.24 days/year.....	<u>÷ 365.24</u>
g)	Period in years from DOC to start of LP*	8.577

* This is the period for which the commencement of LP is "deferred". It determines which columns are used in Tables 2 (for males) or 3 (for females). In this example, you would use columns entitled "Year 8" and "Year 9" in Table 3.

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(Example E continued)

2) Determine PV of life pension for exact age at date of commutation (53.718 years from 1c of Example D) and for exact deferral period (8.577 years from 2g above).

a)	PV for age 53 deferred 8 years (from Table 3).....	603.31
b)	Subtract PV for age 54 deferred 8 years (from Table 3).....	<u>584.78</u>
c)	Difference of 2a and 2b.....	18.53
d)	Multiply by fractional portion of age at DOC.....	<u>× .718</u>
e)	Interpolation adjustment for age.....	13.30
f)	PV for age 53 deferred 8 years (from Table 3).....	603.31
g)	Subtract PV for age 53 deferred 9 years (from Table 3).....	<u>- 565.04</u>
h)	Difference of 2f and 2g.....	38.27
i)	Multiply by fractional portion of deferral period (from 1g).....	<u>× .577</u>
j)	Interpolation adjustment for deferral period.....	22.08
k)	PV for age 53 deferred 8 years (from 2a).....	603.31
l)	Subtract sum of 2e and 2j.....	<u>- 35.38</u>
m)	PV of life pension (for age 53.718 deferred 8.577 years).....	567.93

3) Determine commuted value of all LP as of DOC

a)	PV of life pension (from 2m).....	567.93
b)	Multiply by LP rate.....	<u>× 65.42</u>
c)	Commuted value of all life pension.....	\$37,153.98

Summary of Example E:

- On date of commutation (DOC), \$37,153.98, the commuted value of all life pension indemnity (3c), would be due and payable. No life pension would be due thereafter. (This amount would not include the commuted value of any future PD indemnity. If payment were made after DOC, interest would be due at 10% per annum. See Summary of Example A for interest calculation. To commute future PD, use the method illustrated in Example A.)

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EXAMPLE F - COMMUTATION OF PORTION OF REMAINING LIFE PENSION (LP) AFTER LP COMMENCEMENT BY UNIFORM REDUCTION OF LIFE PENSION PAYMENTS

In this example, the commutation of a portion of life pension is done after LP commencement. Sufficient monies are commuted through uniform reduction of payments from remaining life pension to produce an amount payable on the date of commutation of \$11,500.

Assumed facts for Example F:

Date of birth (DOB): 8/25/45
 Date of injury: 4/10/87
 Life pension commencement date: 3/21/98
 Date of commutation (DOC): 5/14/99

Life pension rate: \$33.92
 Gender: female
 Lump sum to be paid on DOC: \$11,500

1) Determine exact age on date of commutation.

a)	Number of days from DOB through DOC*	19620
b)	Divide by number of days per year.....	<u>÷ 365.24</u>
c)	Exact age on date of commutation.....	53.718

* Note that in determining exact age, the actual date of birth is not counted as the first day of the period. That is, an individual does not become one day old until the day after the DOB. This differs from the determination of the number of days for a period of benefits when the commencement date is counted as the first day of the period. See, for example, step 1a of Example A.

2) Determine PV of life pension as of exact age on DOC

a)	PV for age in table below 1c* (age 53).....	966.59
b)	PV for age in table above 1c (age 54)*	<u>- 947.30</u>
c)	Difference of 2a and 2b.....	19.29
d)	Multiply by fractional portion of age from 1c.....	<u>× .718</u>
e)	Interpolation adjustment for 2d.....	13.85
f)	PV for age in table below 1c* (from 2a above).....	966.59
g)	Subtract 2e	<u>- 13.85</u>
h)	PV of life pension as of exact age on DOC.....	952.74

* Value taken from column titled "Immed." in Table 3.

(Example F continued on next page)

(Example F continued)

- 3) Calculate amount of reduction in LP rate necessary to produce desired lump sum.
- | | | |
|----|--|-----------------|
| a) | Amount to be commuted..... | \$11,500 |
| b) | Divide by PV of LP (2h from above)..... | <u>÷ 952.74</u> |
| c) | Amount of weekly reduction in LP (after rounding)..... | \$12.07 |
- 4) Calculate LP rate after commutation.
- | | | |
|----|--|------------------|
| a) | LP rate before commutation..... | \$33.92 |
| b) | Subtract weekly reduction in LP (from 3c above)..... | <u>- \$12.07</u> |
| c) | LP rate after commutation..... | \$21.85 |

Summary of Example F:

- On date of commutation, \$11,500 would be due and payable. If payment were made after DOC, interest would be due at 10% per annum. See Summary of Example A for interest calculation.
- The life pension, when due, would be paid at the reduced rate of \$21.85.