

# FIGURING DEPRECIATION WITHOUT USING THE TABLES

(Tables located in Appendix of Publication 946, How to Depreciate Property)

## Declining Balance Method

Declining Balance Rate: Divide the specified declining balance percentage (150% or 200% changed to a decimal) by the number of years for the recovery period.

EXAMPLES: For a 3-year property divide 2 (for 200%) by 3 to get 66.667%.  
For a 7-year property divide 2 (for 200%) by 7 to get 28.571%  
For a 15-year property divide 1.5 (for 150%) by 15 to get 10%

Declining Balance Rate			
Property Class	Method	Rate	Year
3-year	200% DB	66.667	3 <sup>rd</sup>
5-year	200% DB	40.000	4 <sup>th</sup>
7-year	200% DB	28.571	5 <sup>th</sup>
10-year	200% DB	20.000	7 <sup>th</sup>
15-year	150% DB	10.000	7 <sup>th</sup>
20-year	150% DB	7.500	9 <sup>th</sup>

For the year the property is placed in service:

1. Multiply the adjusted basis (AB) in the property by the declining balance rate.
2. Apply the applicable convention.

For other years following:

1. Reduce the adjusted basis by the amount allowed in other years.
2. Multiply the new AB by the same declining balance rate.

## Mid-Quarter Convention

Percentages:

Quarter 1	JAN, FEB, MAR	87.5%
Quarter 2	APR, MAY, JUN	62.5%
Quarter 3	JUL, AUG, SEP	37.5%
Quarter 4	OCT, NOV, DEC	12.5%

If the property is disposed of before the end of the recovery period, the deduction for the year of depreciation is calculated by multiplying a full year of depreciation by the percentage for the quarter in which the property was disposed of:

Quarter 1	12.5%
Quarter 2	37.5%
Quarter 3	62.5%
Quarter 4	87.5%

### **Mid-Month Convention:**

Depreciation for the first year depends on when the property was placed into service. Depreciation for a full year is multiplied by a fraction:

The numerator is the number of full months in the year that the property is placed in service plus .5 (for half a month). The denominator is 12.

EX: for an asset placed in service in August

$$\begin{array}{l} \text{NUMERATOR:} \quad 4 \text{ months} + .5 \text{ months} \quad = \quad 4.5 \\ \text{DENOMINATOR:} \quad \quad \quad \quad \quad \quad \quad = \quad 12 \end{array}$$

$$4.5 / 12 = .375$$

**HY Example:**

Facts: 5-year asset with a cost basis of \$10,000; 200% DB and HY convention; placed in service in February of the current year.

1<sup>st</sup> Year:  $10,000 \times .40 = 4,000$   
HY convention, divide 4,000 by 2 = 2,000  
Taxpayer takes \$2,000 in the 1<sup>st</sup> year

2<sup>nd</sup> Year:  $10,000 - 2,000 = 8,000$   
 $8,000 \times .40 = 3,200$   
 $SL = 1 / 4.5 = 22.22\%$   
 $8,000 \times .2222 = 1,778$   
 $3,200 > 1,778$   
Taxpayer takes \$3,200 in the 2<sup>nd</sup> year

3<sup>rd</sup> Year:  $8,000 - 3,200 = 4,800$   
 $4,800 \times .40 = 1,920$   
 $SL = 1 / 3.5 = 28.57\%$   
 $4,800 \times .2857 = 1,371$   
 $1,920 > 1,371$   
Taxpayer takes \$1,920 in the 3<sup>rd</sup> year

4<sup>th</sup> Year:  $4,800 - 1,920 = 2,880$   
 $2,880 \times .40 = 1,152$   
 $SL = 1 / 2.5 = 40\%$   
 $2,880 \times .40 = 1,152$   
Amounts are the same; switch to SL  
Taxpayer takes \$1,152 in the 4<sup>th</sup> year

5<sup>th</sup> Year:  $2,880 - 1,152 = 1,728$   
 $SL = 1 / 1.5 = 66.67\%$   
 $1,728 \times .6667 = \$1,152$   
Taxpayer takes \$1,152 in the 5<sup>th</sup> year

6<sup>th</sup> Year:  $1,728 - 1,152 = 576$   
Since there is less than a year involved,  
taxpayer takes the \$576 left.

TOTALS:  $\$2,000 + \$3,200 + \$1,920 + \$1,152 + \$1,152 + \$576 = \$10,000$

**MQ Example:**

Facts: 7-year asset with a cost basis of \$10,000; 200% DB and MQ convention; placed in service in January of the current year.

- 1<sup>st</sup> Year:  $10,000 \times .2857 = 2,857$   
Mid-Quarter convention, multiply  $2,857 \times .875 = 2,500$   
Taxpayer takes \$2,500 for the first year.
- 2<sup>nd</sup> Year:  $10,000 - 2,500 = 7,500$   
 $7,500 \times .2857 = 2,143$   
Taxpayer takes \$2,143 in the second year.
- 3<sup>rd</sup> Year:  $7,500 - 2,143 = 5,357$   
 $5,357 \times .2857 = 1,531$   
Taxpayer takes \$1,531 in the third year.
- 4<sup>th</sup> Year:  $5,357 - 1,531 = 3,826$   
 $3,826 \times .2857 = 1,093$   
Taxpayer takes \$1,093 in the fourth year.  
Switch to SL for remaining years.
- 5<sup>th</sup> Year:  $3,826 - 1,093 = 2,733$   
Switched to SL;  $1 / 3 = .333$  of the remaining 2,733 for each year.  
Taxpayer takes \$911 in the fifth year.
- 6<sup>th</sup> Year:  $2,733 - 911 = 1,822$   
Switched to SL;  $1 / 3 = .333$  of the remaining 2,733 for each year.  
Taxpayer takes \$911 in the sixth year.
- 7<sup>th</sup> Year:  $1,822 - 911 = 911$   
Switched to SL;  $1 / 3 = .333$  of the remaining 2,733 for each year.  
Taxpayer takes \$911 in the final year.

**MM Example:**

Facts: 5-year asset with a cost basis of \$10,000; SL and MM convention; placed in service in August of the current year.

1<sup>st</sup> Year:  $10,000 \times .20 = 2,000$   
 $MM = 4.5 / 12 = .375$   
 $2,000 \times .375 = 750$   
Taxpayer takes \$750 for the first year.

2<sup>nd</sup> Year:  $10,000 - 750 = 9,250$   
 $SL = 1 / 4.625 = 21.62\%$   
 $9,250 \times .2162 = 2,000$   
Taxpayer takes \$2,000 in the second year.

3<sup>rd</sup> Year:  $9,250 - 2,000 = 7,250$   
 $SL = 1 / 3.625 = 27.59\%$   
 $7,250 \times .2759 = 2,000$   
Taxpayer takes \$2,000 in the third year.

4<sup>th</sup> Year:  $7,250 - 2,000 = 5,250$   
 $SL = 1 / 2.625 = 38.10\%$   
 $5,250 \times .3810 = \$2,000$   
Taxpayer takes \$2,000 in the fourth year.

5<sup>th</sup> Year:  $5,250 - 2,000 = 3,250$   
 $SL = 1 / 1.625 = 61.54\%$   
 $3,250 \times .6154 = \$2,000$   
Taxpayer takes \$2,000 in the fifth year.

6<sup>th</sup> Year:  $3,250 - 2,000 = 1,250$   
Since there is less than a year left, the taxpayer takes 100% of the remaining amount, or \$1,250.