Section 8
TAX DEPRECIATION OF VEHICLES

Introduction
For tax depreciation purposes, a vehicle is generally placed into one of three general categories. Some categories have dollar limits on Section 179 expensing or depreciation, some on both, some on neither. All vehicles are 5-year property (have a 5-year recovery period)

The three categories are as follows:

1. **Passenger automobiles.** Under tax law a passenger auto is “any four-wheel vehicle made primarily for use on public streets, roads, or highways and rated at 6,000 pounds or less of unloaded gross vehicle weight.” This includes most cars and “light” (up to 6,000 pounds) SUVs, pickups or vans not “specially modified” (see below). **All passenger autos are subject to annual IRS limits for combined Section 179 expensing and tax depreciation.**

2. **Heavy SUVs, pickups and vans.** These are vehicles that weigh more than 6,000 pounds, but less than 14,000 pounds. Section 179 expensing is limited to $25,000 but there is no limit on annual depreciation.

3. **Other vehicles.** These are vehicles that do not fit in the first two categories. They have no limits on Section 179 expensing or annual depreciation. Other vehicles include the following:

   • specially modified vehicles. “Specially modified” has a specific meaning under tax law. It means modified in a way that makes it unlikely that the vehicle will be driven for personal use; such as modified so that there is seating for only a driver and one passenger.

   • vehicles weighing at least 14,000 pounds (e.g., tractor-trailers and construction vehicles); and

   • larger delivery trucks, hearses, taxis (“used in the trade or business of transporting people for pay or hire”), and delivery vehicles (“used in the business of transporting property for pay or hire”) and trucks not designed to carry passengers.
Depreciation Limits on Passenger Autos

Under MACRS, annual depreciation of a company car is computed in the same way as other 5-year equipment. But the amount of depreciation allowed each year is limited, as shown in Exhibit A above. There is one set of IRS limits for autos (cars); another for light SUVs, pickups and vans weighing 6,000 pounds or less that are not specially modified. Note the difference in the IRS limits between new and used vehicles throughout the recovery period.

In each year, you must compute Table 1 depreciation for the car, compare it to the IRS limit, and use the lower amount. Important: The IRS publishes this limit table each year, adjusting the limits for inflation. However, you must use the IRS limits for the year in which the car was acquired throughout the car’s recovery period.

EXAMPLE 1: On July 6, 2012, StudCo acquires* a new passenger auto with a cost basis of $28,000. What is Table 1 depreciation (see page 147) for Year 1? What is the IRS limit for Year 1? Which amount must StudCo use for its tax return? What is StudCo’s maximum depreciation deduction for each subsequent year?

*Under both generally accepted accounting principles (GAAP) and tax law, depreciation cannot begin until the asset has been acquired and placed in service. However, to avoid cumbersome, repetitious language (“acquires and places in service . . . “), it is assumed throughout this course that the acquired asset is placed in service on the date of purchase.
To compute Year 1 depreciation:
$28,000 cost basis \times 50\%$ bonus depreciation rate $= $14,000 bonus depreciation. $28,000 \text{ cost basis} – $14,000 \text{ bonus depreciation} = $14,000 \text{ new cost basis} \times 20\% \text{ Table 1 rate for Year 1 depreciation} = $2,800 + $14,000 \text{ bonus depreciation} = $16,800 \text{ total depreciation for Year 1}.$

But the IRS Year 1 limit for a new passenger auto purchased in 2012, (Exhibit A) is $11,160. StudCo can take only $11,160 depreciation the first year. The $5,640 excess ($16,800 depreciation – $11,160 limit) will be taken in later years.

The schedule below shows tax depreciation for the auto over its recovery period.

### Table: StudCo's Annual Tax Depreciation for the New Car

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost basis</th>
<th>Depreciation rate (Table 1)</th>
<th>Computed depreciation</th>
<th>IRS Limit (2012)</th>
<th>Tax Return Depreciation Expense</th>
<th>Depreciation deferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$28,000</td>
<td>$14,000*</td>
<td>$14,000</td>
<td>$11,160</td>
<td>$11,160</td>
<td>$5,640</td>
</tr>
<tr>
<td>Year 2</td>
<td>14,000</td>
<td>20.00%</td>
<td>2,800</td>
<td>5,100</td>
<td>4,480**</td>
<td>—</td>
</tr>
<tr>
<td>Year 3</td>
<td>14,000</td>
<td>19.20%</td>
<td>2,688</td>
<td>3,050</td>
<td>2,688***</td>
<td>—</td>
</tr>
<tr>
<td>Year 4</td>
<td>14,000</td>
<td>11.52%</td>
<td>1,875</td>
<td>1,875</td>
<td>1,613</td>
<td>—</td>
</tr>
<tr>
<td>Year 5</td>
<td>14,000</td>
<td>11.52%</td>
<td>1,875</td>
<td>1,875</td>
<td>1,613</td>
<td>—</td>
</tr>
<tr>
<td>Year 6</td>
<td>14,000</td>
<td>5.76%</td>
<td>806</td>
<td>806</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Year 7</td>
<td></td>
<td></td>
<td>1,875</td>
<td>1,875****</td>
<td>3,765</td>
<td>—</td>
</tr>
<tr>
<td>Year 8</td>
<td></td>
<td></td>
<td>1,875</td>
<td>1,875</td>
<td>1,890</td>
<td>—</td>
</tr>
<tr>
<td>Year 9</td>
<td></td>
<td></td>
<td>1,875</td>
<td>1,875</td>
<td>15</td>
<td>—</td>
</tr>
<tr>
<td>Year 10</td>
<td></td>
<td></td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$28,000</td>
<td>$28,000</td>
<td>0</td>
<td>—</td>
</tr>
</tbody>
</table>

*Revised cost basis ($28,000 original cost basis – $14,000 bonus depreciation).

**Year 2 computed depreciation of $4,480 is lower than the IRS limit of $5,100. Because the company must always use the lower amount, StudCo can take only $4,480 depreciation in Year 2.

***The company must use the computed depreciation of $2,688 because it is lower than the IRS limit of $3,050.

****In Year 7, the company can start to take the $5,640 of depreciation deferred in Year 1. It can take up to the IRS limit of $1,875 per year until it has depreciated the full cost basis of $28,000. To allow for full depreciation of the cost basis, the recovery period is extended to 10 years.
EXAMPLE 2: On July 6, 2012, StudCo acquires a used passenger auto with a cost basis of $28,000. What is Table 1 depreciation for Year 1? What is the IRS limit for Year 1? What is StudCo’s maximum depreciation for Year 1?

To compute Year 1 depreciation:
$28,000 cost basis × 20% Table 1 rate for Year 1 = $5,600.

The IRS Year 1 limit for a used passenger auto purchased in 2012 is $3,160 (Exhibit A, page 188).

StudCo’s maximum depreciation for Year 1 is $3,160. The $2,440 excess ($5,600 Table 1 depreciation – $3,160 limit) will be taken in later years.

Why Sec. 179 Is Rarely Used for Passenger Autos
Under IRS Year 1 passenger auto limits—$11,160 for a new auto and $11,360 for a new light SUV, pickup or van—there is no point in wasting part of the $139,000 Sec. 179 deduction, because it would exceed the deduction allowed.

Sec. 179 limits on heavy SUVs, pickups and vans.
For any heavy SUV purchased after October 22, 2008, the Sec. 179 deduction is limited to $25,000.

<table>
<thead>
<tr>
<th>Exhibit B.</th>
<th>Summary of annual tax deductions for vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Section 179 deduction (139,000 in 2012)</td>
</tr>
<tr>
<td>Passenger autos (includes unmodified light SUVs, pickups and vans)</td>
<td>Rarely used</td>
</tr>
<tr>
<td>Heavy SUVs, pickups and vans</td>
<td>Up to $25,000</td>
</tr>
<tr>
<td>Other vehicles</td>
<td>Up to $139,000</td>
</tr>
</tbody>
</table>

The remaining cost basis after the Sec. 179 deduction is taken can be depreciated using Table 1.
EXAMPLE 3: During 2012, StudCo purchases a new, heavy SUV with a cost basis of $27,000. What is StudCo’s maximum tax deduction for the heavy SUV for 2012?

To compute:
$27,000 cost basis – $25,000 maximum Sec. 179 deduction for the heavy SUV = $2,000 new cost basis

$2,000 revised cost basis × 50% bonus depreciation rate
= $1,000 bonus depreciation

$1,000 new cost basis × 20% Table 1 depreciation
= $200 new cost basis Year 1 depreciation

$25,000 Sec. 179 deduction
+ 1,000 bonus depreciation
+ 200 Table 1 depreciation

$26,200 maximum tax deduction for the new, heavy SUV in 2012.

When Employees Drive

Company Vehicles for Personal Use

A company can treat a vehicle as though it were used 100% for business even when employees drive a company vehicle for personal use under the following conditions:

1. the employer has a business reason for providing the vehicle, such as for business travel or as part of the employee’s compensation as a perk for the job; and

2. the employer reports the value of the employee’s personal use as taxable income on the employee’s W-2.

EXAMPLE 4: MatCo provides a passenger auto to employee Lee who periodically submits detailed records of business and personal mileage. For the year, Lee drives the car 80% for business and 20% for personal use. If MatCo includes the value of the 20% personal use in Lee’s taxable income, the company can depreciate the car as though it were used 100% for business.

The Sole Proprietor’s Company Car

A sole proprietorship (an unincorporated company with one owner), like a corporation, can depreciate a vehicle as though it were used 100% for business
even when employees drive company vehicles for personal use under the same conditions:

1. the employer has a business reason for providing the vehicle, such as for business travel or as part of the employee’s compensation as a perk for the job; and
2. the employer reports the value of the employee’s personal use as taxable income on the employee’s W-2.

But when the sole proprietor drives the car for personal use, there are different rules. Sole proprietors do not file a W-2 for themselves, so their personal use of their own car is not taxable income. However, they are allowed to depreciate the vehicle only in proportion to their business usage. For example, a sole proprietor who drives his or her own vehicle 68% for business can depreciate only 68% of the vehicle’s cost basis for tax purposes.

**EXAMPLE 5:** Sole proprietor Jane has a pickup and a car. She lets employee Rosa use the pickup for business and she uses the car. Mileage records show that she and Rosa both drove the vehicles 80% for business and 20% for personal use.

- If Jane’s company reports the value of Rosa’s 20% personal use of the pickup as taxable income on Rosa’s W-2, 100% of the pickup’s cost basis can be depreciated.
- Jane does not report her 20% personal use of her own car as taxable income. Instead she must limit her depreciation of the vehicle to 80% of the cost basis (because she used the car 80% for business). For example, if Jane’s car has a cost basis of $20,000, she can depreciate only $16,000 ($20,000 cost basis × 80% business use). Her deduction of other vehicle costs (gas, repairs, oil, etc.) is also limited to 80%—the business use portion.

When a sole proprietor drives the car for both personal and business use, the IRS auto limit is also reduced by the personal use.

**EXAMPLE 6:** In June 2012, sole proprietor Jane purchases a new car for $24,000. Mileage records indicate that Jane drives her car 75% for business use and 25% for personal use. Jane’s cost basis is $18,000 ($24,000 original cost basis × 75% business use). What is Jane’s maximum depreciation deduction for the auto on her 2012 tax return?
To compute:
$18,000 \text{ cost basis} \times 50\% = $9,000 \text{ bonus depreciation. $18,000 cost basis} - $9,000 \text{ bonus depreciation} = $9,000 \text{ new cost basis} \times 20\%$

Table 1 rate for Year 1 = $1,800 \text{ Year 1 normal depreciation} + $9,000 \text{ bonus depreciation} = $10,800 \text{ total Year 1 depreciation. However, Jane's maximum deduction based on the IRS limit for a new car purchased in 2012, is $8,370 ($11,160 \times 75\% \text{ business use}). Jane’s maximum depreciation deduction for the auto on her 2012 tax return is $8,370.}

Because the depreciation schedule for a sole proprietor passenger auto that is driven partly for personal use is complicated, a CPA should be consulted.

Sole proprietors who use the company car do not have to include the value of their own personal use in their taxable income. But they must limit depreciation to the portion of the cost basis proportional to business use of the vehicle. However, if a sole proprietor's employees drive the company car, their personal use is reported as personal income on their W-2, and the sole proprietor depreciates the full cost basis of the auto.

**Depreciating Vehicles in Various Kinds of Companies**

Here is a summary:

*C corporations:* The company can deduct 100% of the cost basis, provided that each employee's personal use of the vehicle is reported as taxable income on the employee's W-2. Some shareholder-owners may be subject to special rules.

*S corporations:* The company can deduct 100% of the cost basis, provided that each employee's personal use of the vehicle is reported as taxable income on the employee's W-2. Some shareholder-owners may be subject to special rules.

*Partnerships:* There are special rules for partnerships.

*Sole proprietorships:* The sole proprietorship can deduct 100% of the cost basis, provided that each employee's personal use of the vehicle is reported as taxable income on the employee's W-2. The owner's personal use is not reported as personal income. Instead, the percentage of the cost basis that is depreciated equals the percentage of business use for which the vehicle is driven. Thus, if a vehicle is driven 100% for business use, 100% of the cost basis can be depreciated. If the vehicle is driven 52% for business use, then 52% of the cost basis can be depreciated.
Completing the Depreciation Schedule at Year End

SmallCo is a small, family-owned manufacturer that does not need to show its financial statements to anyone, it does not bother with GAAP. It uses tax depreciation for both its tax return and financial statements.

During 2012, SmallCo, a calendar year company, purchases the following assets:

- On June 15, 2012, SmallCo purchases 10 used Econoline delivery vans for $20,400 each, for a total of $204,000 and has the company name painted on each one. It will not take a Sec. 179 deduction on the vans.


Determine whether the mid-quarter convention applies, do the computations needed to complete SmallCo’s depreciation schedule, then complete the schedule on on the next page.

Try to do these computations before looking at the completed ones on page 195.
To determine whether the mid-quarter convention applies:

$204,000* vans (the only assets purchased during the first three quarters of the year) + $35,000 Lincoln = $239,000 aggregate basis of assets purchased during the year × 40% = $95,600. Fourth-quarter asset purchases of $35,000 (for the Lincoln) do not exceed 40% of the aggregate basis of assets purchased during the year ($95,600). The mid-quarter convention does not apply.

To compute 2012 depreciation for the vans:

$204,000 cost basis × 20% Table 1 depreciation rate for Year 1 (bonus depreciation does not apply to used assets) = $40,800 Table 1 depreciation. However, the IRS limit for used vans is $3,360 per van (see page 188), so SmallCo can take only $33,600 depreciation on the vans for 2012 ($3,360 × 10).

To compute 2012 depreciation for the Lincoln:

$35,000 cost basis – $17,500 bonus depreciation ($35,000 × 50%) = $17,500 new cost basis × 20% Table 1 rate for Year 1 = $3,500 + $17,500 bonus depreciation = $21,000 total Year 1 depreciation. However, the IRS Year 1 limit for a new car purchased in 2012, is $11,160 (see Exhibit A on page 188), so SmallCo can take only $11,160 depreciation for 2012.

Notes for the depreciation schedule:

- In the “Method” column, “HY” stands for half-year and “DDB” for double-declining balance. (Many companies use instead “GDS,” which stands for “General Depreciation System,” a term commonly used to mean MACRS.) “LIM” stands for the IRS limit, referring to the fact that SmallCo could not take the computed depreciation.

The following adjusting entry will be required to record SmallCo’s depreciation expense for 2012:

\[
\begin{align*}
\text{Depreciation Expense} & \quad 44,760^* \\
\text{Accumulated Depreciation—Vehicles} & \quad 44,760
\end{align*}
\]

* SmallCo’s 2012 Depreciation expense of $163,160 is arrived at as follows:

\[
\begin{align*}
$33,600 & \quad 10 \text{ vans} \\
$11,160 & \quad \text{Lincoln} \\
\textbf{$44,760} & \\
\end{align*}
\]

If SmallCo decides to sell or trade in either asset before it is fully depreciated, the company will have to determine the asset’s book value (acquisition cost...
### Depreciation Schedule (2012)

<table>
<thead>
<tr>
<th>KIND OF PROPERTY</th>
<th>DATE ACQUIRED</th>
<th>METHOD</th>
<th>RATE OR LIFE</th>
<th>DEPRECIABLE BASIS</th>
<th>OTHER BASIS</th>
<th>RESIDUAL (SALVAGE) VALUE</th>
<th>DEPRECIATION FOR YR. ENDED</th>
<th>DEPRECIATION IN PRIOR YEARS</th>
<th>ACCUMULATED DEPRECIATION</th>
<th>ACCUMULATED DEPRECIATION FOR YR. ENDED</th>
</tr>
</thead>
</table>

Methods:
- SL = Straight-line
- DB = Declining balance
- SYD = Sum-of-the-years'-digits
## Depreciation Schedule (2012)

Methods
- SL = straight-line
- DB = declining balance
- SYD = sum-of-the-years'-digits

<table>
<thead>
<tr>
<th>KIND OF PROPERTY</th>
<th>DATE ACQUIRED</th>
<th>METHOD</th>
<th>RATE OR LIFE</th>
<th>DEPRECIABLE COST OR OTHER BASIS</th>
<th>RESIDUAL (SALVAGE) VALUE</th>
<th>DEPRECIATION IN PRIOR YEARS</th>
<th>DEPRECIATION FOR YR. ENDED 12/31/12</th>
<th>ACCUMULATED DEPRECIATION 12/31/12</th>
<th>DEPRECIATION FOR YR. ENDED</th>
<th>ACCUMULATED DEPRECIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Econoline vans (used)</td>
<td>6/15/12</td>
<td>HY/DDB</td>
<td>5</td>
<td>204,000</td>
<td></td>
<td>33,600</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lincoln (passenger auto)</td>
<td>11/2/12</td>
<td>HY/DDB</td>
<td>5</td>
<td>35,000</td>
<td></td>
<td>11,160</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>239,000</strong></td>
<td></td>
<td><strong>44,760</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>4,760</strong></td>
</tr>
</tbody>
</table>
– accumulated depreciation) to see if there is a gain or loss. SmallCo will use the accumulated depreciation amount found on the depreciation schedule, not the balance in Accumulated Depreciation—Vehicles which is likely to include accumulated depreciation for all company-owned vehicles.
**QUIZ 1  TAX DEPRECIATION OF VEHICLES**

*Problem I.*

Mark each statement True or False.

1. All company vehicles can be depreciated each year using the depreciation rates in Table 1 without limit.
   
   a. True  
   b. False  

2. The Sec. 179 deduction is usually not beneficial for passenger autos.
   
   a. True  
   b. False  

3. The same IRS limit applies in the first year of a passenger auto’s recovery period regardless of whether the auto is new and bonus depreciation is taken or the auto is used.
   
   a. True  
   b. False  

4. If an employee in a corporation drives the company car 70% for business and 30% for personal purposes, the company can still depreciate the car’s entire cost basis.
   
   a. True  
   b. False  

5. If depreciation for a passenger auto is computed using Table 1 depreciation rates and the amount is less than the IRS limit for that year, you have the option of using either amount as depreciation expense for the year.
   
   a. True  
   b. False  

6. You cannot take first-year bonus depreciation for new trucks and other new vehicles weighing over 6,000 pounds.
   
   a. True  
   b. False
7. A sole proprietor who drives the company car 75% for business and 25% for personal purposes can still depreciate 100% of the car’s cost basis.
   a. True  
   b. False

8. A sole proprietor whose employee drives the company car 75% for business and 25% for personal purposes may still depreciate 100% of the car’s cost basis.
   a. True  
   b. False

9. Under the tax depreciation rules for passenger automobiles, a vehicle may be depreciated beyond the normal 5-year recovery period.
   a. True  
   b. False

**Problem II.**

Multiple choice. Circle the correct answer.

1. Which of the following vehicles does *not* come under the tax depreciation limits of passenger autos?
   a. A pickup weighing less than 6,000 pounds
   b. A company car used by the president
   c. A company delivery truck with 6 wheels weighing 8,000 pounds
   d. A company van weighing less than 6,000 pounds that has all of its seats and is not specially modified

2. When depreciating company vehicles under tax rules . . .
   a. depreciation limits on autos apply to all vehicles.
   b. depreciation is limited under GAAP.
   c. depreciation disallowed for a passenger auto during its recovery period can never be taken.
   d. a company auto driven by employees for both business and personal use is usually treated as used 100% for business when depreciation is computed.
3. Which of the following statements is true about depreciation under MACRS?

a. A C corporation can depreciate 100% of a company vehicle’s cost basis, provided that each employee’s personal use of the vehicle is reported as taxable income on the employee’s W-2.

b. An S corporation can depreciate 100% of a company vehicle’s cost basis, provided that each employee’s personal use of the vehicle is reported as taxable income on the employee’s W-2.

c. A sole proprietorship can depreciate 100% of the proprietorship vehicle’s cost basis, provided that each employee’s personal use of the vehicle is reported as taxable income on the employee’s W-2 and the owner does not drive the vehicle at all for personal use.

d. All of the above.

4. Which of the following is likely to fall under 2012 IRS depreciation limits?

a. An SUV weighing 7,000 pounds.

b. A 5,000-pound van that has several rows of seats and is painted solid white on the outside.

c. A 5,000-pound pickup with all seats removed except the one for the driver.

d. A semi-cab

5. On April 25, 2012, Eldrich & Son purchases for $30,000 a used cargo van weighing 5,000 pounds that has a T.V. stand built into the back and where the back can easily be converted into a place to sleep. The maximum writeoff CryCo can take on this van for 2012 is:

a. $30,000 by taking a Sec. 179 deduction on the van.

b. $18,000 ($15,000 bonus depreciation + $3,000 Table 1 depreciation).

c. $11,360.

d. $3,360.
### QUIZ 1  Solutions and Explanations

**Problem I.**

1. **False**  
   Depreciation for passenger autos is limited to amounts set each year by the IRS.

2. **True**  
   The IRS limits on depreciation make the Sec. 179 deduction useless for most passenger autos.

3. **False**  
   There is one IRS limit for new cars on which bonus depreciation is taken in the first year of their recovery period and a different IRS limit for used cars.

4. **True**  
   The corporation can fully depreciate the company car’s cost basis even if an employee drove the car for personal use, provided the company reports the value of the employee’s personal use in the employee’s taxable income on the W-2.

5. **False**  
   When depreciation computed for a car is different from the IRS limit, you *must* use the lower amount.

6. **False**  
   You are required to take first-year bonus depreciation for new equipment—including trucks and other vehicles—unless you file an election not to.

7. **False**  
   The sole proprietor who uses the car 75% for business can depreciate only 75% of the cost basis.
8. True
Once again, the key word is “may.” The sole proprietor may fully depreciate the company car’s cost basis even if an employee drove the car for personal use—if the value of the employee’s personal use of the car is included in taxable income on the employee’s W-2.

9. True
Depreciation that is disallowed during the recovery period because of IRS limits on annual depreciation is really deferred. It can be taken at the end of the recovery period, even if this requires extending the recovery period by several years beyond the normal 5 years permitted for equipment under MACRS.

Problem II.

1. c
Under tax law, a passenger automobile is defined as a 4-wheel vehicle weighing 6,000 pounds or less unless it was made for “off road” use or is used in a business that transports people or property.

2. d
The company treats the auto as being driven 100% for business use even if employees drive the auto for personal use by reporting employees’ personal use as taxable income on their W-2s.

3. d

4. b

5. d
Because the cargo van weighs less than 6,000 pounds, has a T.V. stand built into the back and space that can easily be converted into a place to sleep, it allows for more than de minimis personal use. Therefore, it comes under IRS depreciation limits. The maximum Year 1 depreciation permitted for a used light van is $3,360.
QUIZ 2 TAX DEPRECIATION OF VEHICLES

Problem I.

On December 8, 2012, RimCo, which has a December 31 year end, purchases a new passenger auto for $32,000. Use Exhibit A (page 188) and Table 1 (page 147) to answer the questions below. RimCo does not elect to take a Section 179 deduction (because it would be a waste). Assume that the mid-quarter convention does not apply.

1. What is the calculated depreciation for the new passenger auto in Year 1?

2. Would the table amount of depreciation change if the auto were purchased in June instead of December?

3. What is the maximum depreciation that RimCo can take for the car in Year 1?

4. Must any Year 1 depreciation be deferred? If yes, how much?

5. What is the calculated amount of depreciation in Year 2?

6. How much depreciation can RimCo take in Year 2?

7. Must any Year 2 depreciation be deferred? If yes, how much?

8. At the end of Year 2, what is the auto’s net book value on the company’s balance sheet?

9. By the end of Year 2, what is the total amount of depreciation that has been deferred?

10. Fill in the missing amounts in the following table (page 205).
Tax Depreciation of Vehicles

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost basis</th>
<th>Table 1 depr. rate (5-year property)</th>
<th>Computed depreciation</th>
<th>IRS limit (2012)</th>
<th>Debit to Depr. Expense</th>
<th>Depreciation disallowed (deferred)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$32,000</td>
<td>×</td>
<td>50.00%</td>
<td>$??</td>
<td>$11,160</td>
<td>$??</td>
</tr>
<tr>
<td>Year 2</td>
<td>$??</td>
<td>×</td>
<td>32.00</td>
<td>$??</td>
<td>5,100</td>
<td>$??</td>
</tr>
<tr>
<td>Year 3</td>
<td>$??</td>
<td>×</td>
<td>19.20</td>
<td>$??</td>
<td>3,050</td>
<td>$??</td>
</tr>
<tr>
<td>Year 4</td>
<td>$??</td>
<td>×</td>
<td>11.52</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 5</td>
<td>$??</td>
<td>×</td>
<td>11.52</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 6</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 7</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 8</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 9</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 10</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
</tr>
<tr>
<td>Year 11</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
<td>1,875</td>
<td>$??</td>
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<tr>
<td>Year 12</td>
<td>$??</td>
<td>×</td>
<td>5.76</td>
<td>$??</td>
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<td>$??</td>
</tr>
<tr>
<td>Total</td>
<td>$??</td>
<td>×</td>
<td>$??</td>
<td>$??</td>
<td>$??</td>
<td>$??</td>
</tr>
</tbody>
</table>
QUIZ 2  Solutions and Explanations

Problem I.

1. $19,200
   To compute: $16,000 bonus depreciation ($32,000 × 50%) + $3,200 normal Year 1 depreciation ($16,000 new cost basis after deducting bonus depreciation × 20% Table 1 rate, 5-year column, Year 1).

2. No, the table amount of depreciation would not change if the auto were purchased in June instead of December, because generally tax rules allow one-half year of depreciation for equipment regardless of when it is purchased.

3. $11,160
   The IRS first-year limit for a new car purchased in 2012, is $11,160, which is lower than the computed depreciation of $19,200 ($16,000 bonus + $3,200 Year 1 MACRS). Under tax law, the lower amount must be used.

4. $8,040
   To compute: $19,200 computed depreciation – $11,160 permitted Year 1 depreciation = $8,040 deferred.

5. $5,120
   To compute: $16,000 new cost basis (after deducting 50% bonus depreciation) × 32% (Table 1, 5-year column, Year 2).

6. $5,100
   The IRS second-year limit on depreciation of $5,100 is lower than the computed depreciation of $5,120 ($16,000 new cost basis × 32% Table 1 rate for Year 2). Under tax law, the lower amount must be used.

7. Yes, $20
   To compute: $5,120 computed amount – $5,100 limit = $20 depreciation deferred in Year 2.
8. At the end of the second year, the auto’s net book value on the company’s balance sheet is as follows:

Asset: Automobile $32,000 (original cost)
Accumulated Depreciation—Automobile ($16,260) ($11,160 Year 1 + $5,100 Year 2)
Net book value $15,740

9. $8,060
To compute: $8,040 depreciation deferred in the first year + $20 depreciation deferred in the second year = $8,060 total depreciation deferred by the end of the second year.

10. The correct amounts are shown in the following table:

<table>
<thead>
<tr>
<th>Cost basis</th>
<th>Table 1 rate (5-year property)</th>
<th>Computed depreciation</th>
<th>IRS limit (2012)</th>
<th>Debit to Depreciation Expense</th>
<th>Depreciation deferred (cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$32,000 × 50.00%</td>
<td>$16,000</td>
<td>$11,160</td>
<td>$11,160</td>
<td>$8,040</td>
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<tr>
<td>Year 2</td>
<td>16,000 × 20.00%</td>
<td>3,200</td>
<td>5,100</td>
<td>5,100</td>
<td>8,060</td>
</tr>
<tr>
<td>Year 3</td>
<td>16,000 × 32.00%</td>
<td>5,120</td>
<td>3,050</td>
<td>3,050</td>
<td>8,082</td>
</tr>
<tr>
<td>Year 4</td>
<td>16,000 × 19.20%</td>
<td>3,072</td>
<td>1,875</td>
<td>1,843*</td>
<td>8,082</td>
</tr>
<tr>
<td>Year 5</td>
<td>16,000 × 11.52%</td>
<td>1,843</td>
<td>3,050</td>
<td>3,050</td>
<td>8,082</td>
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<tr>
<td>Year 6</td>
<td>16,000 × 5.76%</td>
<td>922</td>
<td>1,875</td>
<td>922</td>
<td>8,082</td>
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<tr>
<td>Year 7</td>
<td></td>
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<td>582</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$32,000</td>
</tr>
</tbody>
</table>

*In Year 4, computed depreciation is $1,843 and the IRS limit was $1,875. The company must use the lower amount of $1,843.

**Only $582 depreciation is left in Year 11 to reach the original cost basis of $32,000.