## BRIEF EXERCISES

BE7-1 Fresh Veggies, Inc. (FVI), purchases land and a warehouse for \$500,000. In addition to the purchase price, FVI makes the following expenditures related to the acquisition: broker's commission, $\$ 30,000$; title insurance, $\$ 2,000$; and miscellaneous closing costs, $\$ 5,000$. The warehouse is immediately demolished at a cost of $\$ 30,000$ in anticipation of building a new warehouse. Determine the amount FVI should record as the cost of the land.

BE7-2 Whole Grain Bakery purchases an industrial bread machine for $\$ 25,000$. In addition to the purchase price, the company makes the following expenditures: freight, $\$ 1,500$; installation, $\$ 3,000$; testing, $\$ 1,000$; and property tax on the machine for the first year, $\$ 500$. What is the initial cost of the bread machine?

BE7-3 Kosher Pickle Company acquires all the outstanding stock of Midwest Produce for $\$ 14$ million. The fair value of Midwest's assets is $\$ 11.3$ million. The fair value of Midwest's liabilities is $\$ 1.5$ million. Calculate the amount paid for goodwill.

BE7-4 West Coast Growers incurs the following costs during the year related to the creation of a new disease-resistant tomato plant.

| Salaries for R\&D | $\$ 440,000$ |
| :--- | ---: |
| Depreciation on R\&D facilities and equipment | 135,000 |
| Utilities incurred for the R\&D facilities | 6,000 |
| Patent filing and related legal costs | 22,000 |
| Payment to another company for part of the <br> development work | 110,000 |

What amount should West Coast Growers report as research and development (R\&D) expense in its income statement?

BE7-5 Hanoi Foods incurs the following expenditures during the current fiscal year: (1) annual maintenance on its machinery, $\$ 8,900$; (2) remodeling of offices, $\$ 42,000$; (3) improvement of the shipping and receiving area, resulting in an increase in productivity, $\$ 25,000$; and (4) addition of a security system to the manufacturing facility, $\$ 35,000$. How should Hanoi account for each of these expenditures?

BE7-6 Early in the fiscal year, The Beanery purchases a delivery vehicle for $\$ 40,000$. At the end of the year, the machine has a fair value of $\$ 33,000$. The company controller records depreciation expense of $\$ 7,000$ for the year, the decline in the vehicle's value. Explain why the controller's approach to recording depreciation expense is not correct.

BE7-7 El Tapitio purchased restaurant furniture on September 1, 2012, for $\$ 35,000$. Residual value at the end of an estimated 10-year service life is expected to be \$5,000. Calculate depreciation expense for 2012 and 2013, using the straight-line method, and assuming a December 31 year-end.

BE7-8 Hawaiian Specialty Foods purchased equipment for $\$ 20,000$. Residual value at the end of an estimated four-year service life is expected to be $\$ 2,000$. The machine operated for 2,200 hours in the first year, and the company expects the machine to operate for a total of 10,000 hours. Calculate depreciation expense for the first year using each of the following depreciation methods: (1) straight-line, (2) double-declining-balance, and (3) activity-based.

BE7-9 In early January, Burger Mania acquired 100\% of the common stock of the Crispy Taco restaurant chain. The purchase price allocation included the following items: $\$ 4$ million, patent; $\$ 3$ million, trademark considered to have an indefinite useful life; and $\$ 5$ million, goodwill. Burger Mania's policy is to amortize intangible assets with finite useful lives using the straight-line method, no residual value, and a five-year service life. What is the total amount of amortization expense that would

Determine the initial cost of land (LO1)

Determine the initial cost of equipment (LO1)

Calculate goodwill (LO2)

Compute research and development expense (LO2)

Account for expenditures after acquisition (LO3)

## Explain

depreciation (LO4)

Calculate partial-year depreciation (LO4)

Calculate
depreciation (LO4)

Calculate amortization expense (LO5)

Account for the sale of long-term assets (LO6)

Account for the exchange of long-term assets (LO6)

Flip Side of BE7-12


Account for the exchange of long-term assets (LO6)
Flip Side of BE7-11


Use the return on assets ratio (LO7)

Determine the impairment loss (LO8)

Determine the impairment
loss (LO8)
appear in Burger Mania's income statement for the first year ended December 31 related to these items?

BE7-10 Granite Stone Creamery sold ice cream equipment for $\$ 12,000$. Granite Stone originally purchased the equipment for $\$ 80,000$, and depreciation through the date of sale totaled $\$ 66,000$. What was the gain or loss on the sale of the equipment?

BE7-11 China Inn and Midwest Chicken exchanged assets. China Inn received a delivery truck and gave equipment. The fair value and book value of the equipment were $\$ 17,000$ and $\$ 10,000$ (original cost of $\$ 35,000$ less accumulated depreciation of $\$ 25,000$ ), respectively. To equalize market values of the exchanged assets, China Inn paid $\$ 8,000$ in cash to Midwest Chicken. At what amount did China Inn record the delivery truck? How much gain or loss did China Inn recognize on the exchange?

BE7-12 China Inn and Midwest Chicken exchanged assets. Midwest Chicken received equipment and gave a delivery truck. The fair value and book value of the delivery truck given were $\$ 25,000$ and $\$ 28,000$ (original cost of $\$ 33,000$ less accumulated depreciation of $\$ 5,000$ ), respectively. To equalize market values of the exchanged assets, Midwest Chicken received $\$ 8,000$ in cash from China Inn. At what amount did Midwest Chicken record the equipment? How much gain or loss did Midwest Chicken recognize on the exchange?

BE7-13 The balance sheet of Cedar Crest Resort reports total assets of \$740,000 and $\$ 940,000$ at the beginning and end of the year, respectively. The return on assets for the year is $20 \%$. Calculate Cedar Crest's net income for the year.
BE7-14 Vegetarian Delights has been experiencing declining market conditions for its specialty foods division. Management decided to test the operational assets of the division for possible impairment. The test revealed the following: book value of division's assets, $\$ 28.5$ million; fair value of division's assets, $\$ 20$ million; sum of estimated future cash flows generated from the division's assets, $\$ 30$ million. What amount of impairment loss, if any, should Vegetarian Delights record?

BE7-15 Refer to the situation described in BE 7-14. Assume the sum of estimated future cash flows is $\$ 26$ million instead of $\$ 30$ million. What amount of impairment loss should Vegetarian Delights record?

Record purchase of land (LO1)

Record purchase of equipment (LO1)

E7-1 McCoy's Fish House purchases a tract of land and an existing building for $\$ 900,000$. The company plans to remove the old building and construct a new restaurant on the site. In addition to the purchase price, McCoy pays closing costs, including title insurance of $\$ 2,000$. The company also pays $\$ 12,000$ in property taxes, which includes $\$ 8,000$ of back taxes (unpaid taxes from previous years) paid by McCoy on behalf of the seller and $\$ 4,000$ due for the current fiscal year after the purchase date. Shortly after closing, the company pays a contractor $\$ 45,000$ to tear down the old building and remove it from the site. McCoy is able to sell salvaged materials from the old building for $\$ 3,000$ and pays an additional $\$ 10,000$ to level the land.

## Required:

Determine the amount McCoy's Fish House should record as the cost of the land.
E7-2 Orion Flour Mills purchased a new machine and made the following expenditures:

| Purchase price | $\$ 65,000$ |
| :--- | ---: |
| Sales tax | 5,500 |
| Shipment of machine | 900 |
| Insurance on the machine for the first year | 600 |
| Installation of machine | 1,800 |

The machine, including sales tax, was purchased on account, with payment due in 30 days. The other expenditures listed above were paid in cash.

## Required:

Record the above expenditures for the new machine.
E7-3 Red Rock Bakery purchases land, building, and equipment for a single purchase price of $\$ 400,000$. However, the estimated fair values of the land, building, and equipment are $\$ 150,000, \$ 300,000$, and $\$ 50,000$, respectively, for a total estimated fair value of $\$ 500,000$.

## Required:

Determine the amounts Red Rock should record in the separate accounts for the land, the building, and the equipment.

E7-4 Brick Oven Corporation was organized early in 2012. The following expenditures were made during the first few months of the year:

Reporting intangible assets (LO2)

| Attorneys' fees to organize the corporation | $\$$8,000 <br> Purchase of a patent <br> Legal and other fees for transfer of the patent <br> Preopening employee salaries <br> Total |
| :--- | ---: |
|  | $\underline{20,000}$ |
| $\underline{\$ 110,000}$ |  |

## Required:

Record the $\$ 110,000$ in cash expenditures.
E7-5 Determine the response that best completes the following statements or questions.

1. On December 1, 2012, Bar S purchased a $\$ 500,000$ tract of land for a factory site. Bar $S$ removed an old building on the property and sold the materials it salvaged from the demolition. Bar $S$ incurred additional costs and realized salvage proceeds during December 2012 as follows:

| Demolition of old building | $\$ 40,000$ |
| :--- | ---: |
| Legal fees for purchase contract and recording | 13,000 |
| of ownership | 8,000 |
| Title guarantee insurance | 3,000 |
| Proceeds from sale of salvaged materials |  |

In its December 31, 2012, balance sheet, Bar S should report a balance in the Land account of
a. $\$ 558,000$.
b. $\$ 561,000$.
c. $\$ 564,000$.
d. $\$ 521,000$.
2. On October 1, 2012, Manning Corp. purchased a machine for $\$ 126,000$ that was placed in service on November 30, 2012. Manning incurred additional costs for this machine, as follows:

| Shipping | $\$ 3,000$ |
| :--- | ---: |
| Installation | 4,000 |
| Testing | 5,000 |

In Manning's December 31, 2012, balance sheet, the machine's cost should be reported as:
a. $\$ 126,000$.
b. $\$ 129,000$.

Determine acquisition costs of land, equipment, and patents (LO1, 2)

Calculate the amount of goodwill (LO2)

Record patent and
research and development expense (LO2)
c. $\$ 133,000$.
d. $\$ 138,000$.
3. Hanner Corp. bought Patent A for $\$ 40,000$ and Patent B for $\$ 60,000$. Hanner also paid acquisition costs of $\$ 5,000$ for Patent A and $\$ 7,000$ for Patent B. Both patents were challenged in legal actions. Hanner paid $\$ 20,000$ in legal fees for a successful defense of Patent A and $\$ 30,000$ in legal fees for an unsuccessful defense of Patent B. Due to the unsuccessful defense, Patent B was taken off the books. What amount should Hanner capitalize for patents?
a. \$162,000.
b. $\$ 65,000$.
c. $\$ 112,000$.
d. \$ 45,000.

E7-6 On March 31, 2012, Mainline Produce Corporation acquired all the outstanding common stock of Iceberg Lettuce Corporation for $\$ 34,000,000$ in cash. The book values and fair values of Iceberg's assets and liabilities were as follows:

|  | Book Value |  | Fair Value |
| :--- | ---: | ---: | ---: | ---: |
| Current assets | $\$ 12,000,000$ |  | $\$ 15,000,000$ |
| Property, plant, and equipment | $22,000,000$ |  | $28,000,000$ |
| Other assets | $2,000,000$ |  | $3,000,000$ |
| Current liabilities | $8,000,000$ |  | $8,000,000$ |
| Long-term liabilities | $12,000,000$ |  | $11,000,000$ |

## Required:

Calculate the amount paid for goodwill.
E7-7 In 2012, Satellite Systems modified its model Z2 satellite to incorporate a new communication device. The company made the following expenditures:

| Basic research to develop the technology | $\$ 4,000,000$ |
| :--- | ---: |
| Engineering design work | $1,360,000$ |
| Development of a prototype device | 600,000 |
| Testing and modification of the prototype | 80,000 |
| Legal fees for patent application | 40,000 |
| Legal fees for successful defense of the new patent | $\underline{\$ 6,480,000}$ |

During your year-end review of the accounts related to intangibles, you discover that the company has capitalized all the above as costs of the patent. Management contends that the device represents an improvement of the existing communication system of the satellite and, therefore, should be capitalized.

## Required:

1. Which of the above costs should Satellite Systems capitalize to the Patent account in the balance sheet?
2. Which of the above costs should Satellite Systems report as research and development expense in the income statement?
3. What are the basic criteria for determining whether to capitalize or expense intangible related costs?
E7-8 Listed below are several terms and phrases associated with operational assets. Pair each item from List A (by letter) with the item from List B that is most appropriately associated with it.

List A
_1. Depreciation 2. Goodwill
3. Amortization
4. Natural resources
5. Intangible assets
6. Copyright
7. Trademark

List B
a. Exclusive right to display a word, a symbol, or an emblem.
b. Exclusive right to benefit from a creative work.
c. Assets that represent contractual rights.
d. Oil and gas deposits, timber tracts, and mineral deposits.
e. Purchase price less fair value of net identifiable assets.
f. The allocation of cost for plant and equipment.
$g$. The allocation of cost for intangible assets.

E7-9 Sub Sandwiches of America made the following expenditures related to its restaurant:

1. Replaced the heating equipment at a cost of $\$ 250,000$.
2. Covered the patio area with a clear plastic dome and enclosed it with glass for use during the winter months. The total cost of the project was $\$ 750,000$.
3. Performed annual building maintenance at a cost of $\$ 24,000$.
4. Paid for annual insurance for the facility at $\$ 8,800$.
5. Built a new sign above the restaurant, putting the company name in bright neon lights, for $\$ 9,900$.
6. Paved a gravel parking lot at a cost of $\$ 65,000$.

## Required:

Sub Sandwiches of America credits Cash for each of these expenditures. Indicate the account it debits for each.

E7-10 Super Saver Groceries purchased store equipment for $\$ 21,000$. Super Saver estimates that at the end of its 10 -year service life, the equipment will be worth $\$ 1,000$. During the 10-year period, the company expects to use the equipment for a total of 10,000 hours. Super Saver used the equipment for 1,500 hours the first year.

## Required:

Calculate depreciation expense of the equipment for the first year, using each of the following methods. Round all amounts to the nearest dollar.

1. Straight-line.
2. Double-declining-balance.
3. Activity-based.

E7-11 Speedy Delivery Company purchases a delivery van for $\$ 28,000$. Speedy estimates that at the end of its four-year service life, the van will be worth $\$ 4,000$. During the four-year period, the company expects to drive the van 120,000 miles.

## Required:

Calculate annual depreciation for the four-year life of the van using each of the following methods. Round all amounts to the nearest dollar.

1. Straight-line.
2. Double-declining-balance.
3. Activity-based.

Actual miles driven each year were 33,000 miles in year $1 ; 36,000$ miles in year 2 ; 28,000 miles in year 3 ; and 30,000 miles in year 4 . Note that actual total miles of 127,000 exceed expectations by 7,000 miles.

E7-12 Togo's Sandwiches acquired equipment on April 1, 2012, for $\$ 13,000$. The company estimates a residual value of $\$ 1,000$ and a five-year service life.

Record expenditures after acquisition (LO3)

Determine depreciation for the first year under three methods (LO4)

Determine depreciation under three methods (LO4)

Determine straight-line depreciation for partial periods (LO4)

Determine straight-line depreciation for partial periods (LO4)

Determine depreciation expense for a change in depreciation estimate (LO4)

Determine activity-based depreciation (LO4)

Record amortization expense (LO5)

Record the sale of equipment (LO6)

Record an exchange of land (LO6)

## Required:

Calculate depreciation expense using the straight-line method for 2012 and 2013, assuming a December 31 year-end.

E7-13 Tasty Subs acquired a delivery truck on October 1, 2012, for $\$ 16,500$. The company estimates a residual value of $\$ 1,500$ and a six-year service life.

## Required:

Calculate depreciation expense using the straight-line method for 2012 and 2013, assuming a December 31 year-end.

E7-14 The Donut Stop acquired equipment for $\$ 25,000$. The company uses straightline depreciation and estimates a residual value of $\$ 5,000$ and a four-year service life. At the end of the second year, the company estimates that the equipment will be useful for four additional years, for a total service life of six years rather than the original four. At the same time, the company also changed the estimated residual value to $\$ 3,000$ from the original estimate of $\$ 5,000$.

## Required:

Calculate how much The Donut Stop should record each year for depreciation in years 3 to 6 .

E7-15 Tasty Subs acquired a delivery truck on October 1, 2012, for $\$ 16,500$. The company estimates a residual value of $\$ 1,500$ and a six-year service life. It expects to drive the truck 100,000 miles. Actual mileage was 4,000 miles in 2012 and 17,000 miles in 2013.

## Required:

Calculate depreciation expense using the activity-based method for 2012 and 2013, assuming a December 31 year-end.

E7-16 On January 1, 2012, Weaver Corporation purchased a patent for $\$ 240,000$. The remaining legal life is 20 years, but the company estimates the patent will be useful for only six more years. In January 2014, the company incurred legal fees of $\$ 60,000$ in successfully defending a patent infringement suit. The successful defense did not change the company's estimate of useful life. Weaver Corporation's year-end is December 31 .

## Required:

1. Record the purchase in 2012; amortization in 2012; amortization in 2013; legal fees in 2014; and amortization in 2014.
2. What is the balance in the Patent account at the end of 2014?

E7-17 Abbott Landscaping purchased a tractor at a cost of $\$ 32,000$ and sold it three years later for $\$ 16,000$. Abbott recorded depreciation using the straight-line method, a five-year service life, and a $\$ 2,000$ residual value. Tractors are included in the Equipment account.

## Required:

1. Record the sale.
2. Assume the tractor was sold for $\$ 10,000$ instead of $\$ 16,000$. Record the sale.

E7-18 Salad Express exchanged land it had been holding for future plant expansion for a more suitable parcel of land along distribution routes. Salad Express reported the old land on the previously issued balance sheet at its original cost of $\$ 60,000$. According to an independent appraisal, the old land currently is worth $\$ 112,000$. Salad Express paid $\$ 14,000$ in cash to complete the transaction.

## Required:

1. What is the fair value of the new parcel of land received by Salad Express?
2. Record the exchange.

E7-19 Under Armour, Inc., reported sales of \$725,244 and net income of \$38,229 in its 2008 income statement. Under Armour also reported total assets of $\$ 487,555$ in its 2008 balance sheet and $\$ 390,613$ in its 2007 balance sheet. All amounts are reported in thousands of dollars. (For example, " $\$ 725,244$ " indicates $\$ 725,244,000$.)

## Required:

Calculate the return on assets, the profit margin, and the asset turnover ratio for Under Armour in 2008.

E7-20 Midwest Services, Inc., operates several restaurant chains throughout the Midwest. One restaurant chain has experienced sharply declining profits. The company's management has decided to test the operational assets of the restaurants for possible impairment. The relevant information for these assets is presented below.

Calculate impairment loss (LO8)

| Book value | $\$ 8.5$ million |
| :--- | ---: |
| Estimated total future cash flows | 7.5 million |
| Fair value | 6.0 million |

## Required:

1. Determine the amount of the impairment loss, if any.
2. Repeat Requirement 1 assuming that the estimated total future cash flows are $\$ 9.5$ million and the fair value is $\$ 8$ million.

## PROBLEMS: SET A

P7-1A Italian Bread Company purchased land as a factory site for $\$ 60,000$. An old building on the property was demolished, and construction began on a new building. Costs incurred during the first year are listed on the next page:

| Demolition of old building | $\$ 8,000$ |
| :--- | ---: |
| Sale of salvaged materials | $(1,000)$ |
| Architect fees (for new building) | 15,000 |
| Legal fees (for title investigation of land) | 2,000 |
| Property taxes on the land (for the first year) | 3,000 |
| Building construction costs | 500,000 |
| Interest costs related to the construction | 18,000 |

Required:
Determine the amounts that the company should record in the Land and the Building accounts.

P7-2A Great Harvest Bakery purchased bread ovens from New Morning Bakery. New Morning Bakery was closing its bakery business and sold its two-year-old ovens at a discount for $\$ 600,000$. Great Harvest incurred and paid freight costs of $\$ 30,000$, and its employees ran special electrical connections to the ovens at a cost of $\$ 4,000$. Labor costs were $\$ 32,800$. Unfortunately, one of the ovens was damaged during installation, and repairs cost $\$ 4,000$. Great Harvest then consumed $\$ 800$ of bread dough in testing the ovens. It installed safety guards on the ovens at a cost of $\$ 1,400$ and placed the machines in operation.

## Required:

1. Prepare a schedule showing the amount at which the ovens should be recorded in Great Harvest's Equipment account.
2. Indicate where any amounts not included in the Equipment account should be recorded.

Determine the acquisition cost of equipment (LO1)

Flip Side of P7-8A


Calculate and record goodwill (LO2)

Record expenditures after acquisition (LO3)

Determine depreciation under three methods (LO4)

P7-3A Fresh Cut Corporation purchased all the outstanding common stock of Premium Meats for $\$ 11,000,000$ in cash. The book value of Premium Meats' net assets (assets minus liabilities) was $\$ 7,800,000$. The book values and fair values of Premium Meats' assets and liabilities were:

|  | Book Value | Fair Value |
| :---: | :---: | :---: |
| Receivables | \$1,300,000 | \$ 1,100,000 |
| Property, plant, and equipment | 8,000,000 | 9,400,000 |
| Intangible assets | 200,000 | 1,200,000 |
| Liabilities | $(1,700,000)$ | $(1,700,000)$ |
| Net assets | \$7,800,000 | \$10,000,000 |

## Required:

1. Calculate the amount Fresh Cut paid for goodwill.
2. Record Fresh Cut's acquisition of Premium Meats.

P7-4A Several years ago, Health Services acquired a helicopter for use in emergency situations. Health Services incurred the following expenditures related to the helicopter delivery operations in 2012:

1. Overhauled the engine at a cost of $\$ 7,500$. Health Services estimated the work would increase the service life for an additional five years.
2. Painted the Health Services company logo on the helicopter at a cost of $\$ 6,000$.
3. Added new emergency health equipment to the helicopter for $\$ 25,000$.
4. Modified the helicopter to reduce cabin noise by installing new sound barrier technology at a cost of $\$ 15,000$.
5. Paid insurance on the helicopter for 2012, which increased $15 \%$ over the prior year to $\$ 9,000$.
6. Performed annual maintenance and repairs at a cost of $\$ 39,000$.

## Required:

Indicate whether Health Services should capitalize or expense each of these expenditures. How could Health Services use expenditures like these to increase reported earnings?

P7-5A University Car Wash built a deluxe car wash across the street from campus. The new machines cost $\$ 240,000$ including installation. The company estimates that the equipment will have a residual value of $\$ 30,000$. University Car Wash also estimates it will use the machine for six years or about 12,000 total hours.

## Required:

Prepare a depreciation schedule for six years using the following methods:

1. Straight-line.
2. Double-declining-balance.
3. Activity-based.

Actual use per year was as follows:

| $\frac{\text { Year }}{1}$ |  | Hours Used |
| :---: | :---: | :---: |
| 2 | 2,600 |  |
| 3 |  | 2,100 |
| 4 | 2,200 |  |
| 5 |  | 1,800 |
| 6 | 1,600 |  |
|  | 1,700 |  |

P7-6A The following information relates to the intangible assets of University Testing Services (UTS):
a. On January 1, 2012, UTS completed the purchase of Heinrich Corporation for $\$ 3,000,000$ in cash. The fair value of the net identifiable assets of Heinrich was $\$ 2,700,000$.
b. Included in the assets purchased from Heinrich was a patent valued at \$90,000. The original legal life of the patent was 20 years; there are 12 years remaining, but UTS believes the patent will be useful for only eight more years.
c. UTS acquired a franchise on July 1, 2012, by paying an initial franchise fee of $\$ 350,000$. The contractual life of the franchise is 10 years.

## Required:

1. Record amortization expense for the intangible assets at December 31, 2012.
2. Prepare the intangible asset section of the December 31, 2012, balance sheet.

P7-7A Solich Sandwich Shop had the following long-term asset balances as of December 31, 2012:

|  | Cost | Accumulated Depreciation | Book Value |
| :---: | :---: | :---: | :---: |
| Land | \$ 85,000 | - | \$ 85,000 |
| Building | 450,000 | \$(85,500) | 364,500 |
| Equipment | 250,000 | $(48,000)$ | 202,000 |
| Patent | 200,000 | $(80,000)$ | 120,000 |

Compute depreciation, amortization, and book value of long-term assets (LO4, 5)

Record the disposal of equipment (LO6)


Flip Side of P7-2A


Calculate and interpret ratios (LO7)

| Dell Corporation | 2009 | 2008 |
| :--- | ---: | ---: |
| Net sales | $\$ 61,101$ | $\$ 61,133$ |
| Net income | 2,478 | 2,947 |
| Total assets | 26,500 | 27,561 |
|  |  |  |
|  |  |  |
| Apple Inc. | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 0 8}$ |
| Net sales | $\$ 36,537$ | $\$ 32,479$ |
| Net income | 5,704 | 4,834 |
| Total assets | 53,581 | 39,572 |

## Required:

1. Calculate Dell's return on assets, profit margin, and asset turnover ratio for 2009.
2. Calculate Apple's return on assets, profit margin, and asset turnover ratio for 2009.
3. Which company has the higher profit margin and which company has the higher asset turnover? Is this consistent with the primary business strategies of these two companies?

Calculate and interpret ratios (LO7)

P7-10A University Hero is considering expanding operations beyond its healthy sandwiches. Jim Axelrod, vice president of marketing, would like to add a line of smoothies with a similar health emphasis. Each smoothie would include two free health supplements such as vitamins, antioxidants, and protein. Jim believes smoothie sales should help fill the slow mid-afternoon period. Adding the line of smoothies would require purchasing additional freezer space, machinery, and equipment. Jim provides the following projections of net sales, net income, and average total assets in support of his proposal.


## Required:

1. Calculate University Hero's return on assets, profit margin, and asset turnover for sandwiches only.
2. Calculate University Hero's return on assets, profit margin, and asset turnover for sandwiches and smoothies.
3. Based on these ratios, what recommendation would you make?

## PROBLEMS: SET B

Determine the acquisition cost of land and building (LO1)

Determine the acquisition cost of equipment (LO1)

Flip Side of P7-8B

P7-1B Italian Pizza Company purchased land as a factory site for $\$ 80,000$. Prior to construction of the new building, the land had to be cleared of trees and brush. Construction costs incurred during the first year are listed below:

| Land clearing costs | 4,000 |
| :--- | ---: |
| Sale of firewood to a worker | $(500)$ |
| Architect fees (for new building) | 20,000 |
| Title investigation of land | 2,500 |
| Property taxes on land (for the first year) | 2,000 |
| Building construction costs | 300,000 |

## Required:

Determine the amounts that the company should record in the Land and the New Building accounts.

P7-2B Sicily Pizza purchased baking ovens from New World Deli. New World Deli was closing its bakery business and sold its three-year-old ovens for $\$ 300,000$. In addition to the purchase price, Sicily Pizza paid shipping costs of $\$ 15,000$. Employees of Sicily Pizza installed the ovens; labor costs were $\$ 16,000$. An outside contractor performed some of the electrical work for $\$ 2,800$. Sicily Pizza consumed pizza dough with a cost of $\$ 1,200$ in testing the ovens. It then installed new timers on the ovens at a cost of $\$ 700$ and placed the machines in operation.

## Required:

1. Prepare a schedule showing the amount at which Sicily Pizza should record the ovens in the Equipment account.
2. Indicate where any amounts not included in the Equipment account should be recorded.

P7-3B Northern Equipment Corporation purchased all the outstanding common stock of Pioneer Equipment Rental for $\$ 5,500,000$ in cash. The book value of Pioneer's net assets (assets minus liabilities) was $\$ 3,900,000$. The book values and fair values of Pioneer's assets and liabilities were:

|  | Book Value |  | Fair Value |
| :--- | ---: | ---: | ---: | ---: |
| Receivables | $\$ 650,000$ |  | $\$ 550,000$ |
| Property, plant, and equipment | $4,000,000$ |  | $4,700,000$ |
| Intangible assets | 100,000 |  | 600,000 |
| Liabilities | $\underline{(850,000)}$ |  | $\underline{(850,000)}$ |
| $\quad$ Net assets | $\underline{\$ 3,900,000}$ |  | $\underline{\underline{\$ 5,000,000}}$ |

## Required:

1. Calculate the amount paid for goodwill.
2. Record Northern Equipment's acquisition of Pioneer Equipment Rental.

P7-4B Stillwater Youth Programs (SYP) purchased a used school bus to use in transporting children for its after-school program. SYP incurred the following expenses related to the bus in 2012:

1. Painted the SYP logo on the bus for $\$ 3,000$ to help promote the after-school program.
2. Installed new seats on the bus at a cost of $\$ 5,000$.
3. Installed a DVD player and sound system to entertain the children in-transit and announce upcoming events at a cost of $\$ 1,000$.
4. Paid insurance on the school bus for 2012, which increased $10 \%$ over the prior year to an annual premium of $\$ 2,800$.
5. Performed annual maintenance and repairs for $\$ 1,400$.
6. Overhauled the engine at a cost of $\$ 6,500$, increasing the service life of the bus by an estimated three years.

## Required:

Indicate whether SYP should capitalize or expense each of these expenditures. How could SYP use expenditures like these to increase reported earnings?

P7-5B Cheetah Copy purchased a new copy machine. The new machine cost \$120,000 including installation. The company estimates the equipment will have a residual value of $\$ 30,000$. Cheetah Copy also estimates it will use the machine for four years or about

Determine depreciation under three methods (LO4) 8,000 total hours.

## Required:

Prepare a depreciation schedule for four years using the following methods:

1. Straight-line.
2. Double-declining-balance. (Hint: The asset will be depreciated in only two years.)
3. Activity-based.

Actual use per year was as follows:

| $\frac{\text { Year }}{1}$ |  | Hours Used |
| :---: | :---: | :---: |
|  | 2,500 |  |
| 2 |  | 2,200 |
| 3 |  | 1,900 |
| 4 | 2,000 |  |

Calculate and record goodwill (LO2)

Record expenditures after acquisition (LO3)

Record amortization and prepare the intangible assets section (LO5)

Compute depreciation, amortization, and book value of long-term assets (LO4, 5)

Record the disposal of equipment (LO6)

Flip Side of P7-2B

Calculate and interpret ratios (LO7)

P7-6B The following information relates to the intangible assets of Lettuce Express:
a. On January 1, 2012, Lettuce Express completed the purchase of Farmers Produce, Inc., for $\$ 1,500,000$ in cash. The fair value of the identifiable net assets of Farmers Produce was $\$ 1,350,000$.
b. Included in the assets purchased from Farmers Produce was a patent for a method of processing lettuce valued at $\$ 45,000$. The original legal life of the patent was 20 years. There are still 17 years left on the patent, but Lettuce Express estimates the patent will be useful for only 10 more years.
c. Lettuce Express acquired a franchise on July 1, 2012, by paying an initial franchise fee of $\$ 175,000$. The contractual life of the franchise is seven years.

## Required:

1. Record amortization expense for the intangible assets at December 31, 2012.
2. Prepare the intangible asset section of the December 31, 2012, balance sheet.

P7-7B Togo's Sandwich Shop had the following long-term asset balances as of January 1, 2012:

|  | Cost |  | Accumulated <br> Depreciation |  |
| :--- | ---: | ---: | ---: | ---: | Book Value

Togo's purchased all the assets at the beginning of 2010 (3 years ago). The building is depreciated over a 20-year service life using the double-declining-balance method and estimating no residual value. The equipment is depreciated over a 10-year useful life using the straight-line method with an estimated residual value of $\$ 10,000$. The patent is estimated to have a five-year service life with no residual value and is amortized using the straight-line method.

## Required:

1. For the year ended December 31, 2012, record depreciation expense for buildings and equipment. Land is not depreciated.
2. For the year ended December 31, 2012, record amortization expense for the patent.
3. Calculate the book value for each of the four long-term assets at December 31, 2012.

P7-8B New Deli is in the process of closing its operations. It sold its three-year-old ovens to Sicily Pizza for $\$ 300,000$. The ovens originally cost $\$ 400,000$ and had an estimated service life of 10 years and an estimated residual value of $\$ 25,000$. New Deli uses straight-line depreciation for all equipment.

## Required:

1. Calculate the balance in the Accumulated Depreciation account at the end of the third year.
2. Calculate the book value of the ovens at the end of the third year.
3. What is the gain or loss on the sale of the ovens at the end of the third year?
4. Record the sale of the ovens at the end of the third year.

P7-9B Nike is the market leader and Under Armour is an up-and-coming player in the highly competitive athletic apparel market. Reported below is selected financial information from their 2008 annual financial statements (\$ in millions):


| Under Armour | $\frac{2008}{2007}$ |  |
| :--- | ---: | ---: |
| Net sales | $\$ 725.2$ | $\$ 606.6$ |
| Net income | 38.2 | 52.6 |
| Total assets | 487.6 | 390.6 |

## Required:

1. Calculate Nike's return on assets, profit margin, and asset turnover ratio for 2008.
2. Calculate Under Armour's return on assets, profit margin, and asset turnover ratio for 2008.
3. Which company has the higher profit margin and which company has the higher asset turnover?

P7-10B Barry Sanders, likely the best running back to ever play football, has opened a successful used-car dealership. He has noted a higher than normal percentage of

Calculate and interpret ratios (LO7) sales for trucks and SUVs with hauling capacity at his dealership. He is also aware that several of the best recreational lakes in the state are located nearby. Barry is considering expanding his dealership to include the sale of recreational boats. Barry provides the following projections of net sales, net income, and average total assets in support of his proposal.

|  | Cars Only |  | Cars and Boats |
| :--- | ---: | ---: | ---: |
| Net sales | $\$ 6,400,000$ |  | $\$ 7,600,000$ |
| Net income | 400,000 |  | 600,000 |
| Average total assets | $1,600,000$ |  | $1,800,000$ |

## Required:

1. Calculate Barry's return on assets, profit margin, and asset turnover for cars only.
2. Calculate Barry's return on assets, profit margin, and asset turnover for cars and boats.
3. Based on these ratios, what recommendation would you make?
