## 2022 UIL Student Activity Conference

Detailed Solutions for

2022 Regional, Group 9


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## Detailed Solutions 2022 Regional, Group 9

READ the given information. Important facts:

- Scan the questions: Trial Balances, Adjusted Trial Balances, Jan 1, 2021 balances, COMS, book values
- Scan the Table...YES, there is a work sheet form
- Income Statement covers 12 months
- Fiscal year end is December 31, 2021
- AJEs and closing entries ONLY at the end of the fiscal year
- This is a merchandising business (not a service business)
- The presence of "Allowance" account on the Work Sheet indicates the business ESTIMATES bad debts (NOT the direct write-off method)
- In this document "TB" means Unadjusted Trial Balance; and "ATB" means Adjusted TB.

There are multiple ways to begin. This solution will use the approach of "Write Down What You Know" beginning with the given "Additional Facts."

## Step 1: Equipment Account and Its Respective Accumulated Depreciation Account



Additional Fact \#1: The Equipment $\$ 35,000$ is fully depreciated. It has a salvage value of $\$ 3,800$. Therefore, the total amount that is allowed to be depreciated over the life of this equipment is the difference: Cost 35,000 - Salvage Value 3,800 = Accumulated Depreciation \$31,200 <<Q\#56

## Step 2: Depreciation of the Equipment Purchased on 5-1-21

Additional Fact \#2:

| Cost |  | 17,620 |
| ---: | ---: | ---: |
| Salvage Value | - | 2,500 |
| Amount to depreciate over full life | $=$ | 15,120 |
| Estimated life | $/$ | 7 years |
| Annual depreciation | $=$ | 2,160 |
|  | $/$ | 12 months |
| Monthly depreciation | $=$ | 180 |
| Depreciation for partial year 2021 (May thru Dec) (8 mo) | x | 8 |
| Depreciation for year 2021 | $=$ | 1,440 |



## Step 3: Uncollectible Accounts Receivable

Read Additional Facts \#3 and \#4. Make T-Accounts. The business uses the aging method.


The given information states: "The aging (report) on 12-31-21 indicates that $\$ 975$ is estimated to be uncollectible." Therefore, we need the ENDING balance of the Allowance account to agree to the aging report. Don't let the "weird" TB debit balance of $\$ 120$ throw you. It just means that in the PREVIOUS year 2020, we did not estimate enough bad debt expense. We wrote off more in 2021 than we estimated at the end of year 2020. The bad debt adjustment amount is calculated: 975 PLUS $120=1,095$

Trace each of the above T-accounts to the Work Sheet:

|  | Unadjusted |  |  |  | Adjusted |  |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: |
|  | Trial Balance |  | Adjustments |  | Trial Balance |  |
|  | Debit | Credit | Debit | Credit | Debit | Credit |
| Accounts Receivable | 8,175 |  |  |  | 8,175 |  |
| Allowance for Uncoll. Accts. | 120 |  |  | 1,095 |  |  |
|  |  |  |  |  |  |  |
| Bad Debt Expense |  |  | 1,095 |  | 1,095 |  |

## Step 4: Supplies

Read Additional Facts \#5 and \#6.


Calculate Supplies Expense: Supplies (the asset) on TB $\$ 5,355$ - Supplies on the Adjusted Trial Balance \$2,160 = Supplies Expense \$3,195 <<Q\#67

The following is provided to show you the given information for 2021 in MODIFIED work sheet presentation (horizontal). The colors help you compare the T-account to the MODIFIED work sheet. (Please don't try to find "modified work sheet" in a textbook. This is my way of utilizing the extra space on a worksheet form.)

| Beg. | Hazel's Gift Shop |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bal. | Worksheet |  |  |  |  |  |  |
| Jan. 1 | For the Twelve Months Ended December 31, 2021 |  |  |  |  |  |  |
|  | Account Title | Trial Balance |  | Adjustments |  | Adjusted Trial Balance |  |
|  |  | Debit | Credit | Debit | Credit | Debit | Credit |
|  |  |  |  |  |  |  |  |
| 2,280 | Supplies 3,075 | 5,355 |  |  | 3,195 | 2,160 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Supplies Expense |  |  | 3,195 |  | 3,195 |  |

## Step 5: Prepaid Insurance

Read Additional Facts \#7. Use a "spreadsheet approach" to analyze the two insurance premium payments given.

| Pmt | Annual | Monthly | Expense by Year |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Amt | Amt | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |  |
| $6-1-20$ | 2,820 | 235 | 1,645 | 1,175 | --- |  |
| $6-1-21$ | 3,480 | 290 | -- | 2,030 | 1,450 |  |
|  |  |  | 1,645 | 3,205 | xxxxxxx |  |

The following is provided to show you the given information in T-account presentation (vertical).


The following is provided to show you the given information for 2021 in MODIFIED work sheet presentation (horizontal). The colors help you compare the T-account to the MODIFIED work sheet.

| Beg. | Hazel's Gift Shop |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bal. | Worksheet |  |  |  |  |  |  |
| Jan. 1 | For the Twelve Months Ended December 31, 2021 |  |  |  |  |  |  |
|  | Account Title | Trial Balance |  | Adjustments |  | Adjusted Trial Balance |  |
|  |  | Debit | Credit | Debit | Credit | Debit | Credit |
| 1,175 | Prepaid Ins 3,480 | 4,655 |  |  | 3,205 | 1,450 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Insurance Expense |  |  | 3,205 |  | 3,205 |  |

## Step 6: Merchandise Inventory

Read Additional Facts \#8. The given information has been written in the Modified work sheet below.

| Beg. | Hazel's Gift Shop |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bal. | Worksheet |  |  |  |  |  |  |
| Jan. 1 | For the Twelve Months Ended December 31, 2021 |  |  |  |  |  |  |
|  | Account Title | Trial Balance |  | Adjustments |  | Adjusted Trial Balance |  |
|  |  | Debit | Credit | Debit | Credit | Debit | Credit |
|  |  |  |  |  |  |  |  |
| 31,760 | Merchandise Inventory | 31,760 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | <<Q\#52 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Income Summary |  |  | 1,325 |  |  |  |

There was an adjusting entry DEBIT of $\$ 1,325$ to lncome Summary; therefore, the Merchandise Inventory account has to be credited in the AJEfor the same amount.

Ending Merchandise Inventory (12-31-21) is calculated: Beginning MI debit \$31,760 minus AJE credit 1,325 = Ending MI \$30,435 <<Q\#60

## At this point, your Work Sheet should look like this:

|  | Account Title | Trial Balance |  | Adjustments |  | Adjusted Trial Balance |  |
| :---: | :--- | ---: | :---: | ---: | ---: | ---: | ---: |
| $1-1-21$ | (During the Year) | Debit | Credit | Debit | Credit | Debit | Credit |
|  | Cash in Bank | 12,360 |  |  |  | 12,360 |  |
|  | Accounts Receivable | 8,175 |  |  |  | 8,175 |  |
| 830 | Allowance for UA 950 | 120 |  |  | 1,095 |  | 975 |
| 31,760 | Merchandise Inventory | 31,760 |  |  | 1,325 | 30,435 |  |
| 2,280 | Supplies 3,075 | 5,355 |  |  | 3,195 | 2,160 |  |
| 1,175 | Prepaid Insurance 3,480 | 4,655 |  |  | 3,205 | 1,450 |  |
| 35,000 | Equipment 17,620 | 52,620 |  |  |  | 52,620 |  |
| 31,200 | Accum Depreciation |  | 31,200 |  | 1,440 |  | 32,640 |
|  |  |  |  |  |  |  |  |
|  |  |  |  | 1,325 |  | 1,325 |  |
|  | Income Summary |  |  | 1,095 |  | 1,095 |  |
|  | Bad Debt Expense |  |  | 1,440 |  | 1,440 |  |
|  | Depreciation Expense |  |  | 3,195 |  | 3,195 |  |
|  | Supplies Expense |  |  | 3,205 |  | 3,205 |  |

## Step 7: Focus on Income Statement Questions

Use Additional Facts \#9 and the Work Sheet and "Write Down What You Know." Make a circle (or oval) for the things you do NOT yet know. This will enable you to see a path. After this process, you will often see multiple paths. (Note: you will not have time on an actual test to make a formal Income Statement. This Income Statement is shown for instructional purposes only.) Brackets were added for clarity.

| Hazel's Gift Shop Income Statement <br> For the Twelve Months Ended December 31, 2021 |  |  |  |
| :---: | :---: | :---: | :---: |
| Revenue: |  |  |  |
| Sales |  |  |  |
| Sales Returns \& Allowances |  | <2,870 | > |
| Sales Discounts |  | <960 | > |
| Net Sales |  |  | ) |
| Cost of Merchandise Sold: |  |  |  |
| Merchandise Inventory on 01-01-21 |  | 31,760 |  |
| Purchases |  |  |  |
| Transportation In | 4,890 |  |  |
| Cost of Delivered Merchandise | 93,120 |  |  |
| Purchases Returns \& Allowances | <3,970 |  |  |
| Purchases Discounts | <2,315 |  |  |
| Net Purchases |  |  |  |
| Cost of Merchandise Available for Sale (COMAS) |  | 3 |  |
| Merchandise Inventory on 12-31-21 |  | <30,435 | > |
| Cost of Merchandise Sold (COMS) |  |  |  |
| Gross Profit on Sales |  |  |  |

Calculate Purchases: Cost of Delivered Merchandise (GIVEN) 93,120 - Transportation In 4,890 = Purchases 88,230 <<Q\#64

Calculate Net Purchases: Cost of Delivered Merchandise (GIVEN) 93,120 - PRA 3,970 - PD 2,315 = Net Purchases 86,835 <<Q\#72

Calculate COMAS: Beginning Inventory 31,760 + Net Purchases 86,835 = COMAS 118,595 <<Q\#73

Calculate COMS: COMAS 118,595 - Ending Merchandise Inventory 30,435 = COMS 88,160

Hazel's Gift Shop
Income Statement
For the Twelve Months Ended December 31, 2021

| Revenue: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Sales |  | $\longrightarrow$ |  |  |
| Sales Returns \& Allowances |  | <2,870 | > |  |
| Sales Discounts |  | <960 | > |  |
| Net Sales |  |  | $\longrightarrow$ | 100\% |
| Cost of Merchandise Sold: |  |  |  |  |
| Merchandise Inventory on 01-01-21 |  | 31,760 |  |  |
| Purchases | 88,230 |  |  |  |
| Transportation In | 4,890 |  |  |  |
| Cost of Delivered Merchandise | 93,120 |  |  |  |
| Purchases Returns \& Allowances | <3,970 | > |  |  |
| Purchases Discounts | <2,315 | > |  |  |
| Net Purchases |  | 86,835 |  |  |
| Cost of Merchandise Available for Sale (COMAS) |  | 118,595 |  |  |
| Merchandise Inventory on 12-31-21 |  | <30,435 | > |  |
| Cost of Merchandise Sold (COMS) |  |  | 88,160 |  |
| Gross Profit on Sales |  |  | 3 |  |

## Step 8: Gross Profit and COMS

Read Additional Facts \#9. The Gross Profit Percentage is $42 \%$ and is based on NET Sales. After working this far, are you getting hungry? How about some chocolate pie?

Pretend that Net Sales is an ENTIRE chocolate pie (100\%). Every time a sale is made, we recover our COST of the merchandise item (COMS) AND we make a PROFIT (GP). So, if Net Sales equal $100 \%$ and our gross profit is equal to $42 \%$, what is the remaining percentage, which is the recovery of our cost (COMS)? $100 \%$ - GP 42\% = COMS 58\%

Calculate Net Sales: COMS 88,160 / COMS\% expressed as a decimal . $58=152,000$ <<Q\#71 A very common error is to think that Net Sales is the amount in the General Ledger account called Sales. It is not. We need the amount of GROSS Sales for the Work Sheet.

Calculate GROSS Sales: Net Sales 152,000 + SRA 2,870 + SD $960=$
Gross Sales 155,830
<<Q\#58
Calculate Gross Profit: Net Sales 152,000 - COMS 88,160 = GP 63,840

```
<<Q\#75
```


## Step 9: Calculate Total Expenses

Rent 15,600 + Utilities 5,996 + Advertising 730 + Bad Debts 1,095 + Depreciation 1,440 + Supplies Expense 3,195 + Insurance Expense 3,205 = Total Expenses 31,261

## Step 10: Calculate Net Income

Gross Profit \$63,840 - Total Expenses \$31,261 = Net Income 32,579

## Step 11: Calculate the Owner's Withdrawals

See Additional Fact \#10: \$2,500 x 12 months = 30,000

## Step 12: Calculate Total Assets

Cash 12,360 + AR 8,175 - Allow 975 + MI 30,435 + Sup 2,160 + Prep Ins 1,450 + EQ 52,620 Accum Depr 32,640 = Total (net) Assets 73,585 <<Q\#79

## Step 13: Book Values:

## Book Value of Accounts Receivable

Accounts Receivable 8,175

- Allowance for Uncollectible Accounts 975
= Book Value of Accounts Receivable 7,200


## Book Value of Equipment

Equipment in the ATB 52,620

- Accumulated Depreciation in the ATB 32,640
= Book Value of Equipment 19,980 $\qquad$ Q\#78
$\$ 64,171$ does NOT show up on the Work Sheet Form...only in the General Ledger AFTER Closing Entries are posted on 12-31-21


## See Additional Fact \#11

Step 14: The Owner's Capital Account


Q\#63 Hazel Higgins, Capital on the ADJUSTED Trial Balance will be the same amount as the TB 61,592 because in high school first-year Accounting, we are not taught any of the possible adjustments that might affect the Capital account. Those types of adjustments are for higher level Accounting courses.

## Consider this approach to "double check" Ending Capital.

The Accounting Equation states that Assets = Liabilities + Owner's Equity. (The Balance Sheet) On December 31, 2021 in the ATB, Total (Net) Assets are \$73,585

- ATB Accounts Payable 8,344
- ATB Sales Tax Payable 1,070
= Owner's Capital in the General Ledger AFTER all Closing Entries are posted on 12-31-21 is
Equal to \$64,171 <<Q\#80

This is the completed Work Sheet. (The bold font with shading indicates the given information.

|  | Unadjusted |  |  |  | Adjusted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trial Balance |  | Adjustments |  | Trial Balance |  |
|  | Debit | Credit | Debit | Credit | Debit | Credit |
| Cash in Bank | 12,360 |  |  |  | 12,360 |  |
| Accounts Receivable | 8,175 |  |  |  | 8,175 |  |
| Allowance for Uncol. Accts | 120 |  |  | 1,095 |  | 975 |
| Merchandise Inventory | 31,760 |  |  | 1,325 | 30,435 |  |
| Supplies | 5,355 |  |  | 3,195 | 2,160 |  |
| Prepaid Insurance | 4,655 |  |  | 3,205 | 1,450 |  |
| Equipment | 52,620 |  |  |  | 52,620 |  |
| Accum Depr-Equip |  | 31,200 |  | 1,440 |  | 32,640 |
| Accounts Payable |  | 8,344 |  |  |  | 8,344 |
| Sales Tax Payable |  | 1,070 |  |  |  | 1,070 |
| Hazel Higgins, Capital |  | 61,592 |  |  |  | 61,592 |
| Hazel Higgins, Drawing | 30,000 |  |  |  | 30,000 |  |
| Income Summary |  |  | 1,325 |  | 1,325 |  |
| Sales |  | 155,830 |  |  |  | 155,830 |
| Sales Returns \& Allow. | 2,870 |  |  |  | 2,870 |  |
| Sales Discounts | 960 |  |  |  | 960 |  |
| Purchases | 88,230 |  |  |  | 88,230 |  |
| Transportation In | 4,890 |  |  |  | 4,890 |  |
| Purchases Ret. \& Allow. |  | 3,970 |  |  |  | 3,970 |
| Purchases Discounts |  | 2,315 |  |  |  | 2,315 |
| Rent Expense | 15,600 |  |  |  | 15,600 |  |
| Utilities Expense | 5,996 |  |  |  | 5,996 |  |
| Advertising Expense | 730 |  |  |  | 730 |  |
| Bad Debt Expense |  |  | 1,095 |  | 1,095 |  |
| Depreciation Expense |  |  | 1,440 |  | 1,440 |  |
| Supplies Expense |  |  | 3,195 |  | 3,195 |  |
| Insurance Expense |  |  | 3,205 |  | 3,205 |  |
|  | 264,321 | 264,321 | 10,260 | 10,260 | 266,736 | 266,736 |

