$\qquad$
$\qquad$
Rank $\qquad$

# SPREADSHEET APPLICATIONS \& ANALYSIS (05) 

## Regional-2004

240 Points Possible $=$ Total Points Received: $\qquad$

Failure to adhere to any of the following rules will result in disqualification:

1. Contestant must hand in this test booklet and all printouts. Failure to do so will result in disqualification.
2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile thereof (handwritten, photocopied, or keyed) are allowed in the testing area.
3. Electronic devices will be monitored according to ACT standards.

30 minutes of orientation/warm-up/wrap-up
90 minutes for testing/production
120 minutes total time allotted

Do NOT open test booklet until instructed to do so.
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Workplace Skills Assessment Program regional competition.

|  | Points <br> Possible: | Score: |
| :---: | :---: | :---: |
| Financial Review Worksheet |  |  |
| Titles (main \& column) on worksheet | 12 |  |
| Input data | 28 |  |
| Text formatted correctly | 10 |  |
| Numbers formatted correctly (check for parentheses on |  |  |
| 2004 Net Loss) | 15 |  |
| Insert clip art | 10 |  |
| Printed landscape, no truncation | 10 |  |
| Formula page printed landscape, all on one page | 15 |  |
|  | 100 | Subtotal: |
| Worksheet Calculation |  |  |
| Gross Income Calculated | 10 |  |
| Cost of Goods Sold Calculated | 10 |  |
| Labor Costs Calculated | 10 |  |
| Remaining Expenses Calculated | 20 |  |
| Total Expenses Calculated | 10 |  |
| Net Profit/Loss Calculated | 10 |  |
| \% of Gross Income Calculated | 10 |  |
|  | 80 | Subtotal: |
| Chart |  |  |
| Pie chart (not another type) | 20 |  |
| Title on Chart | 10 |  |
| Legend shown | 15 |  |
| Percentages shown | 15 |  |
|  | 60 | Subtotal: |
|  | 240 | Total: |

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## JOB 1:

As an employee at Professional Business Associates' Financial Services Department, you have been asked to complete a financial projection for A-1 Lumber Company.

- Place your contestant number in cell A1.
- In cell B3 enter the title Professional Business Associates Financial Services. (Center title across cells B3:H3, Arial 14 pt., bold font.
- In cell B5 enter Financial Review for A-1 Lumber Company. Center title across cells B5:H5, Arial 12 pt ., bold font.
- In cells C8:H8 enter years. Format Arial 12 pt., bold, and right justified.
- Use Arial 12 pt. for all remaining entries. Text should be left justified. Numbers should be right justified and use comma separation.
- In cell C7 enter Actual. Center the text.
- In cell D7 enter Projected. Center across cells D7:H7.
- Fill in the remaining data as shown below. Format as shown.

|  |  | Actual | Projected |  |  |  |  |
| :--- | :--- | ---: | :--- | :--- | :--- | :--- | :--- |
|  |  | 2003 | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
|  |  |  |  |  |  |  |  |
| INCOME |  |  |  |  |  |  |  |
| Sales | 450,398 |  |  |  |  |  |  |
|  | Interest | 1,200 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Gross Income |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cost of Goods Sold | 213,074 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | 98,730 |  |  |  |  |  |
| EXPENSES | 9,105 |  |  |  |  |  |  |
| Labor | 3,590 |  |  |  |  |  |  |
| Electricity | 2,378 |  |  |  |  |  |  |
| Telephone | 14,400 |  |  |  |  |  |  |
| Postage | 46,390 |  |  |  |  |  |  |
| Insurance | 14,903 |  |  |  |  |  |  |
| Advertising | 34,071 |  |  |  |  |  |  |
| Office Supplies |  |  |  |  |  |  |  |
| Transportation |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Total Expenses |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Net Profit/(Loss) |  |  |  |  |  |  |  |
| \% of Gross Income |  |  |  |  |  |  |  |

- Select a clip art image relating to the data. In the search for clips box use "financial or money" as a topic or choose your own related topic. Place the image next to the Professional Business Associates Financial Services in cells A3:A7. If your computer does not have clip art, place a textbox in A3:A7 and enter the words "no clip art available."


## Income:

- The company is projecting sales to increase at $8 \%$ each year
- Interest income will remain at $\$ 1,200$ every year.
- Use the sum function to calculate Gross Income for years 2003 through 2008.
- Cost of goods sold in 2004 will be $52 \%$ of sales.
- Cost of goods sold in 2005 through 2008 will be $45 \%$ of sales.


## Expenses:

- Labor in 2004 will increase 5\% from 2003.
- Labor will increase 2\% per year in years 2005-2008.
- Electricity, Advertising and Transportation will increase $10 \%$ per year in years 2004 2008.
- Telephone, Postage, and Office Supplies will increase 5\% per year in years 2004 - 2008.
- Insurance will increase $15 \%$ per year in years 2004 - 2008.
- Use the sum function to calculate Total Expenses for years 2003 through 2008.
- Calculate Net Profit/Loss for years 2003 through 2008 (Gross Income - Cost of Goods Sold - Total Expenses). Be sure to format any loss to show in parentheses.
- Calculate \% of Gross Income. Be sure to format as a percent.
$\checkmark$ Print the worksheet in landscape. (DO NOT have grids or row/column labels showing)
$\checkmark$ Print the worksheet with formulas showing (fit to one page and printed landscape).


## JOB 2:

Chart:

- Create a pie chart showing 2003 expenses and their percentage of total expenses.
- Title the chart A-1 Lumber Company - 2003 Expenses (Contestant \#).
- Place the legend to the right of the chart.
- Save and name the chart, Expenses, to a new sheet.


## Print:

$\checkmark$ Print the chart.

# SPREADSHEET APPLICATIONS \& ANALYSIS (05) 

## KEY

## Regional-2004

Total Points (maximum 240)

## Graders:

When grading computer-generated problems, refer to the Style and Reference Manual and Production Standards in the Workplace Skills Assessment Program Guidelines for further instructions.

Double-check and verify all scores!

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## Points Score:

Possible:

## Financial Review Worksheet

Titles (main \& column) on worksheet Input data
Text formatted correctly
Numbers formatted correctly (check for parentheses on 2004 Net Loss)
Insert clip art
Printed landscape, no truncation
Formula page printed landscape, all on one page
Worksheet Calculation
Gross Income Calculated
Cost of Goods Sold Calculated
Labor Costs Calculated
Remaining Expenses Calculated
Total Expenses Calculated
Net Profit/Loss Calculated
\% of Gross Income Calculated


## Chart

Pie chart (not another type)
Title on Chart
Legend shown
Percentages shown

## Professional Business Associates Financial Services

Financial Review for A-1 Lumber Company

|  | Actual |  | Projected |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ |
| INCOME |  |  |  |  |  |  |
| Sales |  |  |  |  |  |  |
| Interest | 450,398 | 486,430 | 525,344 | 567,372 | 612,762 | 661,782 |
|  | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Gross Income | 451,598 | 487,630 | 526,544 | 568,572 | 613,962 | 662,982 |
|  |  |  |  |  |  |  |
| Cost of Goods Sold | 213,074 | 252,944 | 236,405 | 255,317 | 275,743 | 297,802 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| EXPENSES | 98,730 | 103,667 | 105,740 | 107,855 | 110,012 | 112,212 |
| Labor | 9,105 | 10,016 | 11,017 | 12,119 | 13,331 | 14,664 |
| Electricity | 3,590 | 3,770 | 3,958 | 4,156 | 4,364 | 4,582 |
| Telephone | 2,378 | 2,497 | 2,622 | 2,753 | 2,890 | 3,035 |
| Postage | 14,400 | 16,560 | 19,044 | 21,901 | 25,186 | 28,964 |
| Insurance | 46,390 | 51,029 | 56,132 | 61,745 | 67,920 | 74,712 |
| Advertising | 14,903 | 15,648 | 16,431 | 17,252 | 18,115 | 19,020 |
| Office Supplies | 34,071 | 37,478 | 41,226 | 45,349 | 49,883 | 54,872 |
| Transportation |  |  |  |  |  |  |
| Total Expenses | 223,567 | 240,664 | 256,169 | 273,128 | 291,700 | 312,060 |
|  |  |  |  |  |  |  |
| Net Profit/(Loss) | 14,957 | $(5,977)$ | 33,970 | 40,126 | 46,519 | 53,121 |
| \% of Gross Income | $3.31 \%$ | $-1.23 \%$ | $6.45 \%$ | $7.06 \%$ | $7.58 \%$ | $8.01 \%$ |

## Professional Business Associates Financial Services

Financial Review for A-1 Lumber Company

| $\square$ | Actual |  | Projected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| INCOME |  |  |  |  |  |  |
| Sales | 450398 | $=$ C11*1.08 | =D11*1.08 | $=\mathrm{E} 11^{*} 1.08$ | =F11*1.08 | $=$ G11*1.08 |
| Interest | 1200 | 1200 | 1200 | 1200 | 1200 | 1200 |
| Gross Income | $=$ SUM (C11:C12) | =SUM(D11:D12) | $=$ SUM(E11:E12) | $=S U M(F 11: F 12)$ | $=$ SUM(G11:G12) | $=S U M(H 11: H 12)$ |
| Cost of Goods | 213074 | $=\mathrm{D} 11^{*} 0.52$ | =E11*0.45 | $=\mathrm{F} 11{ }^{*} 0.45$ | $=\mathrm{G} 11^{*} 0.45$ | $=\mathrm{H} 11^{*} 0.45$ |

## EXPENSES

| Labor | 98730 | =C20*1.05 | =D20*1.06 | =E20*1.07 | =F20*1.08 | =G20*1.08 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Electricity | 9105 | = C21*1.1 | =D21*1.1 | =E21*1.1 | =F21*1.1 | =G21*1.1 |
| Telephone | 3590 | = $\mathrm{C} 22 * 1.05$ | =D22*1.05 | =E22*1.05 | =F22*1.05 | =G22*1.05 |
| Postage | 2378 | = $223 * 1.05$ | =D23*1.05 | =E23*1.05 | =F23*1.05 | =G23*1.05 |
| Insurance | 14400 | = $\mathrm{C} 24 * 1.15$ | =D24*1.15 | =E24*1.15 | =F24*1.15 | =G24*1.15 |
| Advertising | 46390 | = C25*1.1 | =D25*1.1 | =E25*1.1 | =F25*1.1 | =G25*1.1 |
| Office Supplies | 14903 | =C26*1.05 | =D26*1.05 | =E26*1.05 | =F26*1.05 | =G26*1.05 |
| Transportation | 34071 | $=\mathrm{C} 27 * 1.1$ | =D27*1.1 | $=\mathrm{E} 27 * 1.1$ | =F27*1.1 | =G27*1.1 |
| Total Expenses | $=$ SUM (C20:C27) | =SUM(D20:D27) | =SUM(E20:E27) | $=$ SUM (F20:F27) | $=S U M(G 20: G 27)$ | $=S U M(H 20: H 27)$ |
| Net Profit/(Loss) | $=\mathrm{C} 14-\mathrm{C} 16-\mathrm{C} 29$ | =D14-D16-D29 | $=E 14-E 16-E 29$ | =F14-F16-F29 | =G14-G16-G29 | $=\mathrm{H} 14-\mathrm{H} 16-\mathrm{H} 29$ |
| \% of Gross Income | =C31/C14 | =D31/D14 | =E31/E14 | =F31/F14 | =G31/G14 | $=\mathrm{H} 31 / \mathrm{H} 14$ |

## A-1 Lumber Company - 2003 Expenses



- Labor
$\square$ Electricity
-Telephone
$\square$ Postage
■ Insurance
$\square$ Advertising
-Office Supplies
-Transportation

