**Problem 17-1 (Algorithmic)**  
Horizontal Analysis for Income Statement

For 2012, Wiglaf Company reported its most significant decline in net income in years. At the end of the year, C.S. Lewis, the president, is presented with the following condensed comparative income statement:

|  |  |  |  |
| --- | --- | --- | --- |
| **Wiglaf Company Comparative Income Statement For the Years Ended December 31, 2012 and 2011** | | | |
|  |  |  |  |
|  | **2012** |  | **2011** |
| Sales | $865,800 |  | $740,000 |
| Sales returns and allowances | 46,953 |  | 37,000 |
| Net sales | $818,847 |  | $703,000 |
| Cost of goods sold | 589,600 |  | 440,000 |
| Gross profit | $229,247 |  | $263,000 |
| Selling expenses | $84,080 |  | $59,000 |
| Administrative expenses | 48,320 |  | 37,000 |
| Total operating expenses | $132,400 |  | $96,000 |
| Income from operations | $96,847 |  | $167,000 |
| Other income | 3,807 |  | 3,000 |
| Income before income tax | $100,654 |  | $170,000 |
| Income tax expense | 28,200 |  | 51,000 |
| Net income | $72,454 |  | $119,000 |

**Instructions:**



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.**Prepare a comparative income statement with horizontal analysis for the two-year period, using 2011 as the base year. Use the minus sign to indicate a decrease in the "Difference " columns. If required, round to one decimal place.     |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | **Wiglaf Company** | | | | | | | | | | | |  | | --- | | **Comparative Income Statement** | | | | | | | | | | | |  | | --- | | **For the Years Ended December 31, 2012 and 2011** | | | | | | | | | | |  |  | |  | | --- | | 2012 | |  | |  | | --- | | 2011 | |  | |  | | --- | | Difference - Amount | |  | |  | | --- | | Difference - Percent | | | |  | | --- | | Sales | |  | |  | | --- | | $ 865,800 | |  | |  | | --- | | $ 740,000 | |  | |  | | --- | | $ | |  | |  | | --- | | % | | | |  | | --- | | Sales returns and allowances | |  | |  | | --- | | 46,953 | |  | |  | | --- | | 37,000 | |  | |  | | --- | |  | |  | |  | | --- | |  | | | |  | | --- | | Net sales | |  | |  | | --- | | $ 818,847 | |  | |  | | --- | | $ 703,000 | |  | |  | | --- | | $ | |  | |  | | --- | |  | | | |  | | --- | | Cost of goods sold | |  | |  | | --- | | 589,600 | |  | |  | | --- | | 440,000 | |  | |  | | --- | |  | |  | |  | | --- | |  | | | |  | | --- | | Gross profit | |  | |  | | --- | | $ 229,247 | |  | |  | | --- | | $ 263,000 | |  | |  | | --- | | $ | |  | |  | | --- | |  | | | |  | | --- | | Selling expenses | |  | |  | | --- | | $ 84,080 | |  | |  | | --- | | $ 59,000 | |  | |  | | --- | | $ | |  | |  | | --- | |  | | | |  | | --- | | Administrative expenses | |  | |  | | --- | | 48,320 | |  | |  | | --- | | 37,000 | |  | |  | | --- | |  | |  | |  | | --- | |  | | | |  | | --- | | Total operating expenses | |  | |  | | --- | | $ 132,400 | |  | |  | | --- | | $ 96,000 | |  | |  | | --- | | $ | |  | |  | | --- | |  | | | |  | | --- | | Income from operations | |  | |  | | --- | | $ 96,847 | |  | |  | | --- | | $ 167,000 | |  | |  | | --- | | $ | |  | |  | | --- | |  | | | |  | | --- | | Other income | |  | |  | | --- | | 3,807 | |  | |  | | --- | | 3,000 | |  | |  | | --- | |  | |  | |  | | --- | |  | | | |  | | --- | | Income before income tax | |  | |  | | --- | | $ 100,654 | |  | |  | | --- | | $ 170,000 | |  | |  | | --- | | $ | |  | |  | | --- | |  | | | |  | | --- | | Income tax expense | |  | |  | | --- | | 28,200 | |  | |  | | --- | | 51,000 | |  | |  | | --- | |  | |  | |  | | --- | |  | | | |  | | --- | | Net income | |  | |  | | --- | | $ 72,454 | |  | |  | | --- | | $ 119,000 | |  | |  | | --- | | $ | |  | |  | | --- | | % | |   http://east.cengagenow.com/media/img/onepixel.gif |

 **2.**To the extent the data permit, comment on the significant relationships revealed by the horizontal analysis prepared in (1).

**Problem 17-2 (Algorithmic)**  
Vertical Analysis for Income Statement

For 2012, Othere Technology Company initiated a sales promotion campaign that included the expenditure of an additional $23,000 for advertising. At the end of the year, George Wallace, the president, is presented with the following condensed comparative income statement:

|  |  |  |  |
| --- | --- | --- | --- |
| **Othere Technology Company Comparative Income Statement For the Years Ended December 31, 2012 and 2011** | | | |
|  | **2012** |  | **2011** |
| Sales | $839,460 |  | $715,080 |
| Sales returns and allowances | 16,460 |  | 7,080 |
| Net sales | $823,000 |  | $708,000 |
| Cost of goods sold | 444,420 |  | 339,840 |
| Gross profit | $378,580 |  | $368,160 |
| Selling expenses | $189,290 |  | $127,440 |
| Administrative expenses | 82,300 |  | 84,960 |
| Total operating expenses | $271,590 |  | $212,400 |
| Income from operations | $106,990 |  | $155,760 |
| Other income | 32,920 |  | 42,480 |
| Income before income tax | $139,910 |  | $198,240 |
| Income tax expense | 57,610 |  | 77,880 |
| Net income | $82,300 |  | $120,360 |

**Instructions:**



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.**Prepare a comparative income statement for the two-year period, presenting an analysis of each item in relationship to net sales for each of the years. Enter percentages as whole numbers.     |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | OTHERE TECHNOLOGY COMPANY | | | | | | | | | | | |  | | --- | | Comparative Income Statement | | | | | | | | | | | |  | | --- | | For the Years Ended December 31, 2012 and 2011 | | | | | | | | | | |  |  | |  | | --- | | 2012 Amount | |  | |  | | --- | | 2012 Percent | |  | |  | | --- | | 2011 Amount | |  | |  | | --- | | 2011 Percent | | | |  | | --- | | Sales | |  | |  | | --- | | $ 839,460 | |  | |  | | --- | | % | |  | |  | | --- | | $ 715,080 | |  | |  | | --- | | % | | | |  | | --- | | Sales returns and allowances | |  | |  | | --- | | 16,460 | |  | |  | | --- | |  | |  | |  | | --- | | 7,080 | |  | |  | | --- | |  | | | |  | | --- | | Net sales | |  | |  | | --- | | $ 823,000 | |  | |  | | --- | | % | |  | |  | | --- | | $ 708,000 | |  | |  | | --- | | % | | | |  | | --- | | Cost of goods sold | |  | |  | | --- | | 444,420 | |  | |  | | --- | |  | |  | |  | | --- | | 339,840 | |  | |  | | --- | |  | | | |  | | --- | | Gross profit | |  | |  | | --- | | $ 378,580 | |  | |  | | --- | | % | |  | |  | | --- | | $ 368,160 | |  | |  | | --- | | % | | | |  | | --- | | Selling expenses | |  | |  | | --- | | $ 189,290 | |  | |  | | --- | | % | |  | |  | | --- | | $ 127,440 | |  | |  | | --- | | % | | | |  | | --- | | Administrative expenses | |  | |  | | --- | | 82,300 | |  | |  | | --- | |  | |  | |  | | --- | | 84,960 | |  | |  | | --- | |  | | | |  | | --- | | Total operating expenses | |  | |  | | --- | | $ 271,590 | |  | |  | | --- | | % | |  | |  | | --- | | $ 212,400 | |  | |  | | --- | | % | | | |  | | --- | | Income from operations | |  | |  | | --- | | $106,990 | |  | |  | | --- | | % | |  | |  | | --- | | $ 155,760 | |  | |  | | --- | | % | | | |  | | --- | | Other income | |  | |  | | --- | | 32,920 | |  | |  | | --- | |  | |  | |  | | --- | | 42,480 | |  | |  | | --- | |  | | | |  | | --- | | Income before income tax | |  | |  | | --- | | $ 139,910 | |  | |  | | --- | | % | |  | |  | | --- | | $ 198,240 | |  | |  | | --- | | % | | | |  | | --- | | Income tax expense | |  | |  | | --- | | 57,610 | |  | |  | | --- | |  | |  | |  | | --- | | 77,880 | |  | |  | | --- | |  | | | |  | | --- | | Net income | |  | |  | | --- | | $ 82,300 | |  | |  | | --- | | % | |  | |  | | --- | | $ 120,360 | |  | |  | | --- | | % | |     http://east.cengagenow.com/media/img/onepixel.gif |

 **2.**To the extent the data permit, comment on the significant relationships revealed by the vertical analysis prepared in (1).