

eComp.com Case

eComp.com manufactures personal digital assistants (PDA's)¹. Because these very small computers compete with laptops that have more functions and flexibility, understanding and using cost behavior is critical to eComp.com's profitability. eComp.com's Controller, Kelly Hudson, has kept meticulous files on manufacturing cost at eComp.com. Assume that manufacturing costs are the only cost at eComp.com. Data that Kelly has collected over the past 25 weeks on manufacturing costs follow:

Week	Manufacturing Costs	Number of Units
1	\$ 23,907	1,357
2	\$ 18,265	1,077
3	\$ 24,208	1,383
4	\$ 23,578	1,486
5	\$ 22,211	1,292
6	\$ 22,862	1,425
7	\$ 23,303	1,306
8	\$ 24,507	1,373
9	\$ 17,878	1,031
10	\$ 18,306	1,020
11	\$ 20,807	1,097
12	\$ 19,707	1,069
13	\$ 23,020	1,444
14	\$ 20,407	733
15	\$ 20,370	413
16	\$ 20,678	633
17	\$ 21,145	711
18	\$ 20,775	228
19	\$ 20,532	488
20	\$ 20,659	655
21	\$ 20,430	722
22	\$ 20,713	373
23	\$ 20,256	391
24	\$ 21,196	734
25	\$ 20,406	256

Note that this data is also available in an Excel file posted on Canvas with this case. The last page of this case assignment contains grading expectations and guidelines.

¹ Case materials and questions created by Serena Loftus. Data from Horngren, Sundem, Stratton, Burgstahler, and Schatzberg "Introduction to Management Accounting" 15e.

Part A: Applying your Knowledge of Cost Behavior

Requirement 1: Use the high-low method to estimate the fixed and variable components of manufacturing costs. Round your answers to two decimal spaces.

Requirement 2: Assume that each unit sells for \$30. Compute the contribution margin per unit and the CM ratio. You will need to refer to your answer from Requirement 2. Round your answers to two decimal spaces.

Requirement 3: Calculate the company's overall profit from the entire 25-week period.

Requirement 4: Assume that the company wants to earn a target profit of \$5,000 in week 26. What amount of units do they need to sell to earn that profit?

Requirement 5: Estimate the total manufacturing cost to manufacture the units that you answered in Requirement 4. Does this cost appear reasonable to you? Why or why not?

Part B: Extending your Knowledge of Cost Behavior

Requirement 6: Prepare a scattergraph plot that puts number of units on the X-axis and manufacturing costs on the Y-axis. *Ensure your scatterplot has a title, and that both the X-axis and the Y-axis are labelled. Please format the Y-axis to have a minimum of \$17,000 and a maximum value of \$25,000 and to have major units of \$1,000. Please format the X-axis to have a minimum of 0 and a maximum of 1,600, and to have major units of 200. Note that you may find it easier to prepare this graph using Microsoft Excel. If you do use Microsoft Excel, you can insert a graph into a word document by right clicking on the graph and selecting "copy." Then you can "paste" the graph into any word document.*

Requirement 7: In no more than 2 sentences, describe the cost behavior that is evident in the scattergraph plot.

Requirement 8: Prepare a scattergraph plot that puts number of weeks on the X-axis and manufacturing costs on the Y-axis. *Ensure your scatterplot has a title, and that both the X-axis and the Y-axis are labelled. Please format the Y-axis to have a minimum of \$17,000 and a maximum value of \$25,000 and to have major units of \$1,000. Please format the X-axis to have a minimum of 0 and a maximum of 25, and to have major units of 5.*

Requirement 9: In no more than 2 sentences, describe the cost behavior that is evident in the scattergraph plot above.

Requirement 10: Do you still believe that your estimates of fixed and variable costs in Part A are appropriate estimates? Would you recommend that Kelly Hudson use them in her analysis? Why or why not?

Requirement 11: Prepare a revised estimate of fixed and variable costs for Kelly Hudson based on your insights above. Describe your reasoning in no more than 2 sentences. *Note that there is no single "right" answer to this question, and many answers may be correct. Note that you did not need any more sophisticated analysis than the high-low method (e.g., least-squares regression is not necessary or correct).*

eComp Case Grading Guidelines

- **Answers with no supporting calculations will receive a zero (0%) on this assignment.**
- You do not need to type your responses, nor are you required to use Excel for this assignment. However, your answers must be legible and labelled.
- You must turn in a copy of your answers as a PDF or WORD document. If complete the case by hand, you must submit a scanned copy of your answers.
- You may work on this assignment with others from the class. You may discuss this assignment with others in the class. However, each student is expected to turn in their own assignment. You may not put more than one name on each assignment.

Points	Case Grading Rubric
0	<ul style="list-style-type: none"> • Less than 50% of requirements attempted • No supporting calculations are shown for attempted problems
3	<ul style="list-style-type: none"> • At least 50% of requirements attempted • Supporting calculations are shown for attempted problems
5	<ul style="list-style-type: none"> • May skip no more than 3 case requirement • Supporting calculations are shown for attempted problems
6	<ul style="list-style-type: none"> • May skip no more than 1 case requirement • Supporting calculations are shown for attempted problems • All answers requiring written responses are clear and comply with the guidelines in the problem (e.g., maximum number of sentences not exceeded)
7	<ul style="list-style-type: none"> • All case requirements attempted • Supporting calculations are shown for attempted problems • All answers requiring written responses are clear and comply with the guidelines in the problem (e.g., maximum number of sentences not exceeded) • More than 6 case requirements are incorrect
8	<ul style="list-style-type: none"> • All case requirements attempted • Supporting calculations are shown for attempted problems • All answers requiring written responses are clear and comply with the guidelines in the problem (e.g., maximum number of sentences not exceeded) • No more than 6 case requirements are incorrect
9	<ul style="list-style-type: none"> • All case requirements attempted • Supporting calculations are shown for attempted problems • All answers requiring written responses are clear and comply with the guidelines in the problem (e.g., maximum number of sentences not exceeded) • No more than 3 case requirements are incorrect
10	<ul style="list-style-type: none"> • All case requirements attempted • Supporting calculations are shown for attempted problems • All answers requiring written responses are clear and comply with the guidelines in the problem (e.g., maximum number of sentences not exceeded) • No more than 1 case requirement is incorrect