

Chapter 4 Problem Wrap-Up

Student Text Page
193

Suggested Timing
30 min

Tools
• calculators

Related Resources
BLM 4.CP.1 Chapter 4 Problem
Wrap-Up Rubric

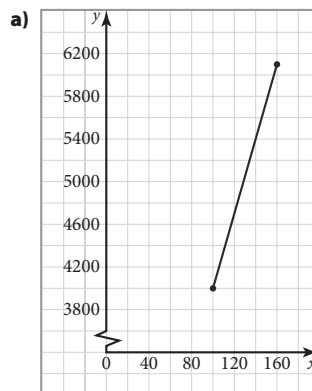
Summative Assessment

- Use **BLM 4.CP.1 Chapter 4 Problem Wrap-Up Rubric** to assess student achievement.

Teaching Suggestions

- Have students summarize their solutions to questions that link to the Chapter Problem.
- Students should graph the available information and develop an equation for the cost of renting the hall. The slope of the graph is the charge per person, and the y -intercept is the fixed cost of renting the hall.
- You may wish to have students develop a table of values for 200 to 400 guests using an interval of 50.
- If time permits, have students determine the cost equation for a local hall and compare this equation to the equation from the Chapter Problem.
- An Internet search may be useful in finding information on hall prices for events. Students can also see if there are different prices for a wedding, a banquet, or a school graduation ceremony.

Level 3 Sample Response



b) slope = 35

c) 500

d) Slope is the charge per person and the y -intercept is the fixed cost of renting the hall

e) Assumptions:

- hall prices have not changed since the information was given
- prices do not vary according to type of event or time of the year or day of the week of the event
- type of food ordered does not affect the price per person
- if a larger room is needed, there is not a different fixed cost

Level 3 Notes

Look for the following:

- a graph of the two points, including scale, the line through the accurately graphed points and a suggestion of labels for the axes (possibly as simple as x - and y -axis)
- a calculation for the slope of the line
- explanations of the interpretations for slope and y -intercept using such language as *charge per person* or *amount to be paid for each person attending* for the slope, and *fixed cost* or *hall rental fee* for the y -intercept
- an explanation of a few assumptions made in the calculations and that the chosen assumptions would be factors to consider

What Distinguishes Level 2

At this level, look for the following:

- a graph that is not labelled or not clearly labelled and with points that are close to being plotted correctly
- a statement of the slope and y -intercept without reference to how the values for slope and y -intercept are obtained
- slight errors in the reported values of slope and y -intercept
- explanations for slope and y -intercept that are unclear in their language or incorrect in their interpretation
- an attempt at describing assumptions that would not play a role in the cost of an event
- an attempt at describing assumptions where the assumption is valid, but are not clearly explained as to why they would be factors

What Distinguishes Level 4

At this level, look for the following:

- an organized, accurate, and neat graph of the two points, including scale, labels for the axes as cost, and number of people attending, and the line through the accurately graphed points
- clear and easy to follow calculation for the slope of the line
- clear explanations of the interpretations for slope and y -intercept using such language as *charge per person* or *amount to be paid for each person attending* for the slope, and *fixed cost* or *hall rental fee* for the y -intercept
- a clear explanation of many assumptions made in the calculations and that the chosen assumptions would be factors to consider