

# Chapter 2 Review

## Student Text Pages

95 to 97

## Suggested Timing

80 min

## Tools

- grid paper

## Related Resources

BLM 2.CR.1 Chapter 2 Review

BLM G10 Grid Paper

## Ongoing Assessment

- Students can create a summary sheet of the skills in the chapter (to be holistically checked by teacher before the Chapter Test).
- Upon completing the Chapter Review, students can also answer questions such as the following:
  - *Did you work by yourself or with others?*
  - *What questions did you find easy? Difficult? Why?*
  - *How often did you have to check the related section in the text for Examples or Key Concepts? For which questions was this necessary?*

## Using the Chapter Review

Each question reviews different skills and concepts. Have copies of **BLM G10 Grid Paper** available for students to use. The students might work independently to complete the Chapter Review, then, in pairs to compare solutions. Alternatively, the Chapter Review could be assigned for reinforcing skills and concepts in preparation for **Chapter Practice Test**. Provide an opportunity for the students to discuss any questions containing strategies or questions with features they find difficult. Use **BLM 2.CR.1 Chapter 2 Review** for extra review.

After they complete the Chapter Review, encourage students to make a list of questions that caused them difficulty and include the related sections and teaching examples. They can use this to focus their studying for **Chapter Test** on the chapter's content.

The Chapter Review contains a considerable number of communication questions and may take the students longer than expected. You may wish to spend a few minutes a day for a few days taking these up.

For further data for question 8, go to the web site:  
<http://www.statcan.ca/english/Pgdb/demo03.htm>.

# Chapter 2 Practice Test

## Student Text Pages

98 to 99

## Suggested Timing

80 min

## Tools

- grid paper

## Related Resources

BLM 2.PT.1 Chapter 2 Practice Test

BLM 2.CT.1 Chapter 2 Test

BLM G10 Grid Paper

## Summative Assessment

- After students complete the **BLM 2.PT.1 Chapter 2 Practice Test**, you may wish to use **BLM 2.CT.1 Chapter 2 Test** as a summative assessment.

## Accommodations

**Perceptual**—Encourage students work together in study groups.

**Motor**—Let students dictate their answers to the review questions and practice test, if possible, to an educational assistant who, as a scribe, will record the responses and answers.

**Language**—If possible, allow students time to complete the review questions and practice test in this section in their school's Language Lab in which the questions are scanned by the computer and read to the student.

**Memory**—Give students opportunities to give oral responses to the Chapter Review questions and Practice Test. Provide students with extra visual and verbal cues and prompts.

## Study Guide

Use the following study guide to direct students who have difficulty with specific questions to appropriate examples to review.

Question	Section(s)	Refer to
1	2.1	Example 2 (page 43)
2	2.2	Example 2 (page 50)
3	2.4	Example 1 (page 70)
4	2.3	Investigate B (page 58)
5	2.1	Example 1 (page 43)
6	2.2	Examples 1, 2, 3 (page 49)
7	2.5	Investigate, Example 1 (pages 77, 78)
8	2.6	Investigate A, B (pages 88, 89)
9	2.3/2.5	Investigate A/Investigate (pages 56, 77)

## Using the Practice Test

This Practice Test can be assigned as an in-class or take-home assignment. You may wish to use **BLM G10 Grid Paper** for Chapter Review questions 6a), 7b), 8a), 9a), 10a) and b), 11a), and 13a) and b). If the Practice Test is used as an assessment, use the following guidelines to help you evaluate the students.

Can students do each of the following?

- Identify population, random sampling techniques, bias, outliers
- State the opposite of a hypothesis
- Make a scatter plot and describe a relationship
- Make a line of best fit from a scatter plot
- Discuss a trend from a scatter plot
- Interpolate and extrapolate as appropriate
- Conduct an experiment involving data collection

# Chapter 2 Problem Wrap-Up

**Student Text Page**  
99

**Suggested Timing**  
80 min

**Related Resources**  
BLM A17 Teamwork Self Assessment  
BLM 2.CP.1 Chapter 2 Problem Wrap-Up Rubric  
BLM G10 Grid Paper

**Tools**  
• grid paper

## Summative Assessment

- Use **BLM 2.CP.1 Chapter 2 Problem Wrap-Up Rubric** to assess student achievement.

## Using the Chapter Problem

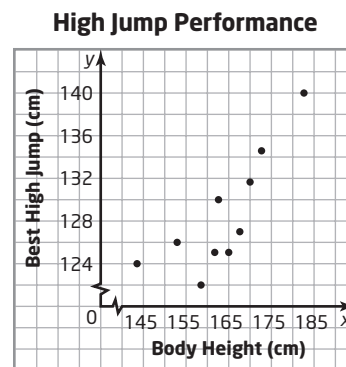
- The Chapter Problem may be an ongoing assessment piece or given as a culminating activity at the end of the unit.
- This problem is well suited to group work. If you choose to have students work in groups, you may wish to use **BLM A17 Teamwork Self Assessment** as a self-assessment tool.
- Part a) will be the most time consuming and part d) will be the most challenging to demonstrate level 3 or 4 work.
- Explain the importance of fully documented steps, a complete set of data, good graphs, and clear explanations and that level 4 work involves providing more depth to their thinking, explanations, and reflection. You may wish to use **BLM G10 Grid Paper** to assist the students.
- Contact a physical education teacher or track and field coach as a guest speaker for the class and to help with the logistics of collecting data.
- If data collection must be restricted to the classroom, the high jump could be modified to measure how high a student can jump off the ground from a stationary start. A practical way to measure jump heights is to have students touch as high as possible up a wall, and then subtract their combined arm and body height. A measuring scale can be taped to the wall beforehand. This will give the height of their feet off the ground. Multiple students could view each jump and their observations could be averaged to provide more accurate data.
- Discuss the problem in a whole-class setting or divide the class into cooperative groups. The objective of such discussions is to clarify the problem, brainstorm possible hypotheses, plan a strategy for collecting and recording data, and examine assessment criteria for the completed task.
- Questions to ask to generate discussion include:
  - How many measurements do you need?
  - How will you record your data?
  - How will you choose the sample of students to collect data from?

### Level 3 Sample Response

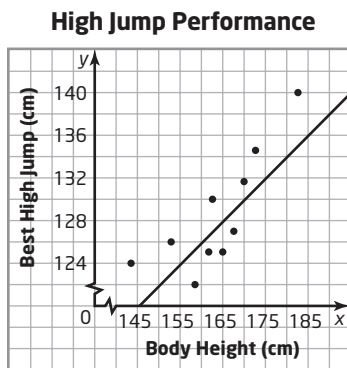
- a) I examined the relationship between body height and performance in the high jump. My original hypothesis had been that high jump performance increases with a student's body height. The following chart gives the data that was collected.

Student	Body Height (cm)	Best High Jump (cm)
1	153	126
2	167	128
3	182	140
4	144	124
5	161	125
6	158	122
7	173	135
8	162	130
9	169	132
10	165	125

- b) My scatter plot of this data follows. It suggests a linear relationship is possible but it is not a strong linear relationship. Six of the data points seem to form a good straight line but the other four points are below.



- c) The line of best fit (least squares line) is added below. The line fits the data fairly well, but there are many points that seem to be away from this line.



- d) The hypothesis has been (weakly) supported by the data.

### Level 3 Notes

Look for the following:

- Clear statement of hypothesis
- Simple, but complete, description of how data was collected
- Complete data table, scatter plot
- Line or curve of best fit present, may be hand drawn but will smoothly fit the data
- Clear report
- Mostly correct units of measure

### What Distinguishes Level 2

At this level, look for the following:

- Statement of hypothesis is present but may be incomplete or ambiguous
- Limited description of how data was collected
- Data table provided but it may have only a few data points or contain a few points with obvious errors
- Line of best fit may be absent or drawn but inaccurately
- Reasonably clear report, but with some lack of clarity
- Some correct units of measure, some may be absent

### What Distinguishes Level 4

At this level, look for the following:

- Clear, detailed statement of hypothesis
- Detailed description of how data was collected
- Report may include more than one hypothesis related to the data
- Explanation of how hypothesis was chosen
- Data table and scatter plot are based on a large sample of data
- May include a discussion of the choice of a line of best fit vs. a curve of best fit
- Possible analysis of errors arising from measurement tools and procedures
- Suggestions for how to improve data collection accuracy
- Possible comments about extrapolation of data to taller and shorter athletes
- Creative, sophisticated, or very organized way of providing reports, which may include diagrams, photos, and Internet references
- Correct use of relevant units of measure