

Chapter 4 Problem Wrap-Up

Student Text Page

229

Suggested Timing

40 min

Related Resources

BLM 4-14 Chapter 4 Problem
Wrap-Up Rubric

Teaching Suggestions

- The Chapter Problem deals with designing a video game about extreme sports. Many of these sports incorporate an object or person flying through the air. Students can use quadratic relations to model projectile motion.
- You may use the Chapter Problem throughout the chapter, in which case you should introduce the Chapter Problem on the first day and revisit it as it comes up in the chapter exercises.
- If you use the Chapter Problem as a summative assessment tool, you should wait until the end of the chapter to introduce the Chapter Problem, and then have students work on the series of questions.

Level 3 Sample Response

Answers may vary. See the Chapter Problems in the student textbook for examples of appropriate relations.

Level 3 Notes

Look for the following:

- an effective plan, carried out appropriately
- ability to use quadratic relations to model projectile motion
- understanding of the concepts of quadratic relations and projectile motion
- effective use of mathematical terms and symbols
- understanding of problem solving techniques
- organised justification for responses

What Distinguishes Level 2

Look for the following:

- a less effective plan, not necessarily carried out appropriately
- some ability to use quadratic relations to model projectile motion
- some understanding of the concepts of quadratic relations and projectile motion
- somewhat effective use of mathematical terms and symbols
- some understanding of problem solving techniques, but difficulty in applying the techniques
- somewhat organised justification for responses

What Distinguishes Level 4

Look for the following:

- a highly organised, thorough, and effective plan, carried out appropriately
- uses quadratic relations effectively to model projectile motion
- thorough understanding of the concepts of quadratic relations and projectile motion
- highly effective use of mathematics terms and symbols
- thorough understanding of problem solving techniques
- clear, accurate, and detailed justification for responses

Summative Assessment

- Use **BLM 4-14 Chapter 4 Problem Wrap-Up Rubric** to assess student achievement.

