Chapter 7 Problem Wrap-Up

Student Text Page
417

Suggested Timing
30 min

Related Resources
BLM 7-16 Chapter 7 Problem Wrap-Up Rubric

Using the Chapter Problem

- Suggest to students that their answer to **part a)** should include references to the Chapter Problem questions in the exercises, not just to the data provided in the Chapter Problem Wrap-Up.
- In **part b)**, the paragraph could take the form of a poster in a doctor's office, a news article, or a health bulletin in a magazine.
- Students should complete the Chapter Problem Wrap-Up individually, but could be permitted to discuss the concepts with each other first.

Level 3 Sample Response

a) Sound intensities are related by powers of 10. In the table, the sound intensities increase by 3 dB each time. Since $10^{0.3} \doteq 2$, each sound intensity in the table is double the intensity of the previous measure. It makes sense that the recommended maximum continuous exposure time to a sound intensity is half the recommended maximum time for the previous measure.

b) Answers may vary.

Level 3 Notes

Look for the following:

- appropriate explanations with minor errors
- understanding of exponential relations
- understanding of problem solving techniques
- organised solution and clear justification for responses
- effective use of mathematical language

What Distinguishes Level 2

Look for the following:

- some appropriate explanations with some significant errors
- some understanding of exponential relations
- some understanding of problem solving techniques, but difficulty in applying the techniques
- somewhat organised solution and some justification for responses
- somewhat effective use of mathematical language

What Distinguishes Level 4

Look for the following:

- appropriate and detailed explanations with very few or no errors
- thorough understanding of exponential relations
- highly effective use of problem solving techniques
- highly organised solution and clear, accurate, and detailed justification for responses
- highly effective use of mathematical language

Summative Assessment

- Use **BLM 7-16 Chapter 7 Problem Rubric** to assess student achievement.