

Chapter 7 Problem Wrap-Up

Student Text Page

441

Suggested Timing

40 min

Tools

- graphing calculators

Related Resources

BLM 7-13 Chapter 7 Problem
Wrap-Up Rubric

Teaching Suggestions

- Have students read the Chapter Problem Wrap-Up and ensure they understand what they are being asked to do. Relate the Chapter Problem revisits to the Chapter Problem Wrap-Up scenario. Discuss how John and Lina's financial situation has improved over time. Emphasize that the accumulation of wealth is often a life-long process.
- Circulate as students complete the questions and assist them as necessary. Students can give more polished solutions if they have additional time and access to computers and/or graphing calculators.
- If you assigned the Chapter Problem revisits section by section, the Chapter Problem Wrap-Up can be used as part of a summative assessment.
- If you are assigning the Chapter Problem as a whole at the end of the chapter, you can use it as part of a summative assessment or as a formative assessment prior to a Chapter Test or Task.

Level 3 Sample Response

- a)** Use the compound interest formula:

$$FV = 175\,900(1.07)^{22}$$
$$= 779\,307.67$$

John and Lina's house will be worth approximately \$779 000 after 22 years.

- b)** Use the compound interest formula:

$$FV = 279\,000(1.06)^{10}$$
$$= 499\,646.51$$

John and Lina's condominium will be worth approximately \$500 000 after ten years.

- c)** Use the TVM Solver.

$$N = 322.6916325$$

$$I\% = 6$$

$$PV = 400000$$

$$PMT = -2500$$

$$FV = 0$$

$$P/Y = 12$$

$$C/Y = 12$$

$$PMT: \text{END}$$

John and Lina will be able to withdraw \$2500 each month for approximately 322 months or almost 27 years.

Level 3 Notes

Look for the following:

- appropriate solutions for all parts of the problem with minor errors
- understanding of compound interest and annuities
- understanding of problem-solving techniques
- organised solution and clear justification for responses
- effective use of financial terms

What Distinguishes Level 2

Look for the following:

- some appropriate solutions for most parts of the problem with some significant errors
- some understanding of compound interest and annuities
- some understanding of problem-solving techniques, but difficulty in applying the techniques
- somewhat organised solution and some justification for responses
- somewhat effective use of financial terms

What Distinguishes Level 4

Look for the following:

- appropriate and detailed solutions for all parts of the problem with very few or no errors
- thorough understanding of compound interest and annuities
- highly effective use of problem-solving techniques
- highly organised solution and clear, accurate, and detailed justification for responses
- highly effective use of financial terms

Summative Assessment

- Use **BLM 7-13 Chapter 7 Problem Wrap-Up Rubric** to assess student achievement.