

Math for Financial Literacy ©2013

Chapter 13: Financial Planning—Checkpoint Solutions

Checkpoint 13.1

1. Use the information in Figure 13-1 to calculate the rate of inflation between 2007 and 2008.

Answer: 3.9%

2. Jackson's estate has total assets worth \$315,678 and total liabilities worth \$95,167. Calculate the value of the net assets in Jackson's estate.

Answer: \$220,511

3. Dianne's grandmother's estate has total assets worth \$485,617 and total liabilities worth \$160,018. What is the value of the net assets in Dianne's grandmother's estate?

Answer: \$325,599

4. Hassan has \$5,000 to invest in bond funds. He chose to invest in Bond Fund A, which had an annual yield of 3.8%. His other choice, Bond Fund B, had an annual yield of 6.3% for that same year. What was the opportunity cost of Hassan's decision?

Answer: \$125

5. Armen has \$3,500 to invest in the stock market. He chose Western Telecommunication, which had an annual yield of 6.2%. His other choice, Eastern Financial Group, had an annual yield of 9.1% for that same year. What was the opportunity cost of Armen's decision?

Answer: \$101.50

Checkpoint 13.2

1. Hope has a taxable income of \$42,313 and files her federal income taxes as single. She has decided to make a \$1,300 contribution to an IRA. What will be Hope's tax savings from the IRA contribution?

Answer: \$325

2. Alex and Julia Moreno are married and file their income taxes jointly. Their taxable income is \$89,711. They decided to each contribute \$5,000 to an IRA. What will be the Morenos' tax savings from the IRA contribution?

Answer: \$2,500

3. Rosa began a new job as a chemical technician earning \$44,200 per year and decided to contribute to a 401(k) retirement account. She will contribute 4%, and her employer will match up to 2.5% of her salary. What will be the combined annual contributions to her 401(k) account?

Answer: \$2,873

4. Clarissa has decided to contribute to an annuity. She will contribute \$250 per month for 12 years. Her investment advisor helped her find an annuity that will earn 6% annual interest. What will be the future value of Clarissa's annuity at the end of the 12-year period?

Answer: \$52,540

5. Raj's aunt set up an annuity so that after he graduated high school he would receive \$300 per month for a period of five years. The ordinary annuity has an annual interest rate of 4.75%. Calculate the amount of money Raj's aunt deposited to fund the annuity, or the present value of the ordinary annuity.

Answer: \$15,992.94

Checkpoint 13.3

1. What is Desmond's net annual income for the rental house?

Answer: \$1,860

2. What will be Desmond's net annual income once the mortgage on the rental house is paid?

Answer: \$12,000

3. Neida wrote a book and receives a 5% royalty from all sales. During one quarter, her book generated \$24,084 in sales. What will be Neida's royalty during this quarter?

Answer: \$1,204.20

4. Brent and Lee created a video game. Together they receive a 4.5% royalty on all sales. They split the royalties equally. If there were \$14,000 in sales last year, what would be each partner's profit?

Answer: \$315

5. Gayle purchased an inflatable bounce house. She rents it to Trey, who sets it up at children's parties. Trey pays Gayle \$35 for every party. Last year, Trey used Gayle's bounce house at 37 parties. What is Gayle's total passive income from this enterprise?

Answer: \$1,295