

# Financial Functions Practice #A1

<p><b>1. You are twenty-five years old and currently have no savings. You plan to retire at age 70 years. If you start to save \$2,000 per year at age 25, how much will have been saved at retirement? Assume you will earn a 6% return on your savings.</b></p>	<p>1.</p>
<p><b>2. Your client has been offered two options for the settlement of a dispute with his insurance company. You must help him to choose the option with the highest present value.</b></p> <p><b>Option One: \$30,000 per year for 10 years</b></p> <p><b>Option Two: \$450,000 paid in a lump sum in 12 years. Assume an annual rate of return of 6%.</b></p> <p><b>2A. Present Value of Option One</b>  <b>2B. Present Value of Option Two</b>  <b>2C. Which option should the client choose?</b></p>	<p>2A.</p> <hr/> <p>2B.</p> <hr/> <p>2C.</p>
<p><b>3. You qualify for a home loan of \$350,000 at an annual interest rate of 4.6% and a loan term of 30 years. What will be your monthly payment?</b></p>	<p>3.</p>
<p><b>4. You are currently thirty years old and have set a savings goal of \$1,000,000 for when you reach 75 years old. You presently have savings of \$7,000 and no debt. How much must be saved each year to attain your savings goal of \$1,000,000? Assume you can earn an annual return of 7% on your savings.</b></p>	<p>4.</p>
<p><b>5. Two hundred bonds with a face value of \$20,000 pay \$1,200 per year and mature in 14 years. How much should an investor pay for this investment if they desire a 5% annual return?</b></p>	<p>5.</p>
<p><b>6. Five hundred strip bonds with a face value of \$50,000 mature in 8 years. How much should an investor pay for this investment if they desire a 4.0% annual return?</b></p>	<p>6.</p>
<p><b>7. You and your spouse earn \$95,000 per year, and want to spend only 32% of your income on a mortgage payment. You qualify for a 30-year loan at an annual rate of 4.2%. Find how much you can borrow with these limitations.</b></p>	<p>7.</p>
<p><b>8. You are currently thirty years old and have set a savings goal of \$1,150,000 for when you reach 75 years old. You presently have no savings or debt. How much must be saved each year to attain your savings goal of \$1,150,000? Assume you can earn an annual return of 6% on your savings</b></p>	<p>8.</p>

<p>9. You are thirty years old and currently have no savings. You have only one debt, a \$55,000 student loan. You plan to retire at age 70 years. If you start to save \$3,600 per year starting at age 30, how much will have been saved at retirement? Assume you will earn a 7% return on your savings.</p>	<p>9.</p>												
<p>10. - 11. An investment is projected to earn the following net operating incomes.</p> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: left;">Year</th> <th style="text-align: left;">Net Operating Income</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>\$80,000</td> </tr> <tr> <td>2</td> <td>\$85,000</td> </tr> <tr> <td>3</td> <td>\$93,000</td> </tr> <tr> <td>4</td> <td>\$94,000</td> </tr> </tbody> </table> <p>At the end of the four-year holding period, the investment is sold for net proceeds of \$820,000.</p> <p>10. Find the net present value of this investment if you want to earn a 7% rate of return.</p> <p>11. What is the rate of return if you pay \$900,000 for this investment? (Report to nearest tenth %)</p>	Year	Net Operating Income	1	\$80,000	2	\$85,000	3	\$93,000	4	\$94,000	<p>10.</p> <hr/> <p>11.</p>		
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<p>12. Provide an income statement estimating Year 3 Net Operating Income for this property.</p> <ul style="list-style-type: none"> <li>• 10-unit apartment building with all two-bedroom units.</li> <li>• Each unit will rent for \$1,400 per month in year one.</li> <li>• Rents will increase 5% each year.</li> <li>• Estimate vacancy and collection loss at 7% of gross income.</li> <li>• Annual expenses in year one will be \$40,000, and are projected to increase at 5% annually.</li> </ul> <table border="0" style="width: 100%;"> <tr> <td style="border-top: 1px solid black; width: 50%;"></td> <td style="border-top: 1px solid black; width: 50%;"></td> </tr> <tr> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> </table>													