

# Financial Functions Practice #2

<p>1. You are twenty years old and currently have no savings. You plan to retire at age 55 years. If you start to save \$3,500 per year at age 20, how much will have been saved at retirement? Assume you will earn a 5% return on your savings.</p>	<p>1.</p>
<p>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.</p> <p>Option One: \$45,000 per year for 7 years</p> <p>Option Two: \$600,000 paid in a lump sum in 10 years. Assume an annual rate of return of 7%.</p> <p>2A. Present Value of Option One                  2B. Present Value of Option Two                  2C. Which option should the client choose?</p>	<p>2A.</p> <hr/> <p>2B.</p> <hr/> <p>2C.</p>
<p>3. You qualify for a home loan of \$450,000 at an annual interest rate of 3.7% and a loan term of 30 years. What will be your monthly payment?</p>	<p>3.</p>
<p>4. You are currently twenty-five years old and have set a savings goal of \$1,200,000 for when you reach 70 years old. You presently have savings of \$50,000 and no debt. How much must be saved each year to attain your savings goal of \$1,200,000? Assume you can earn an annual return of 6% on your savings.</p>	<p>4.</p>
<p>5. Three hundred bonds with a face value of \$30,000 pay \$1,000 per year and mature in 16 years. How much should an investor pay for this investment if they desire a 7% annual return?</p>	<p>5.</p>
<p>6. Four hundred fifty strip bonds with a face value of \$45,000 mature in 10 years. How much should an investor pay for this investment if they desire a 6.0% annual return?</p>	<p>6.</p>
<p>7. You and your spouse earn \$120,000 per year, and want to spend only 35% of your income on a mortgage payment. You qualify for a 15-year loan at an annual rate of 3.7%. Find how much you can borrow with these limitations.</p>	<p>7.</p>
<p>8. You are currently twenty-five years old and have set a savings goal of \$1,000,000 for when you reach 65 years old. You presently have no savings or 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.</p>	<p>8.</p>

<p>9. You are twenty-five years old and currently have no savings. You have only one debt, a \$60,000 student loan. You plan to retire at age 80 years. If you start to save \$4,000 per year starting at age 25, how much will have been saved at retirement? Assume you will earn a 6% 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="1" data-bbox="162 409 682 598"> <thead> <tr> <th>Year</th> <th>Net Operating Income</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>\$90,000</td> </tr> <tr> <td>2</td> <td>\$97,000</td> </tr> <tr> <td>3</td> <td>\$103,000</td> </tr> <tr> <td>4</td> <td>\$109,000</td> </tr> </tbody> </table> <p>At the end of the four-year holding period, the investment is sold for net proceeds of \$900,000.</p> <p>10. Find the net present value of this investment if you want to earn a 9% rate of return.</p> <p>11. What is the rate of return if you pay \$875,000 for this investment? (Report to nearest tenth %)</p>	Year	Net Operating Income	1	\$90,000	2	\$97,000	3	\$103,000	4	\$109,000	<p>10.</p> <hr/> <p>11.</p>		
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<p>12. Provide an income statement estimating Year 4 Net Operating Income for this property.</p> <ul style="list-style-type: none"> <li>• 15-unit apartment building with all two-bedroom units.</li> <li>• Each unit will rent for \$1,200 per month in year one.</li> <li>• Rents will increase 4% each year.</li> <li>• Estimate vacancy and collection loss at 6% of gross income.</li> <li>• Annual expenses in year one will be \$50,000, and are projected to increase at 7% annually.</li> </ul> <table border="0" data-bbox="66 1218 1396 1680"> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> </table>		_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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