

3U Unit 7 Review Stations

Station	Answer(s)																				
F	<p>1.</p> <table border="1"> <thead> <tr> <th>Annual Interest Rate (%)</th> <th>Number of Years</th> <th>Compounding Period (in words)</th> <th>n</th> <th>i (approx. to 4 decimal places)</th> </tr> </thead> <tbody> <tr> <td>4.0%</td> <td>7</td> <td>monthly</td> <td>84</td> <td>0.0033</td> </tr> <tr> <td>1.4%</td> <td>18</td> <td>quarterly</td> <td>72</td> <td>0.0035</td> </tr> <tr> <td>8.5%</td> <td>1.5</td> <td>semi-monthly</td> <td>36</td> <td>0.0035</td> </tr> </tbody> </table> <p>2. 15.48%</p> <p>3. • compounded quarterly with interest rate of 6.4%/a • investing \$1500 • will have \$20 000 at end of 15 years. • How much are the regular payments every 4 months?</p>	Annual Interest Rate (%)	Number of Years	Compounding Period (in words)	n	i (approx. to 4 decimal places)	4.0%	7	monthly	84	0.0033	1.4%	18	quarterly	72	0.0035	8.5%	1.5	semi-monthly	36	0.0035
Annual Interest Rate (%)	Number of Years	Compounding Period (in words)	n	i (approx. to 4 decimal places)																	
4.0%	7	monthly	84	0.0033																	
1.4%	18	quarterly	72	0.0035																	
8.5%	1.5	semi-monthly	36	0.0035																	
I	<p>1. \$ 239.22</p> <p>2. 11.98%/a</p> <p>3. \$ 8739.03</p>																				
N ₁	\$ 4850.03																				
A	<p>1.</p> <table border="1"> <thead> <tr> <th>Payment (\$)</th> <th>Annual Interest Rate</th> <th>Number of Years</th> <th>Total Number of Payments</th> <th>Compounding Period</th> <th>Total Amount (\$)</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>3.5%</td> <td>8</td> <td>96</td> <td>monthly</td> <td>11 060.25</td> </tr> <tr> <td>13.12</td> <td>5.2%</td> <td>6</td> <td>156</td> <td>bi-weekly</td> <td>2400</td> </tr> </tbody> </table> <p>2. 10.72%</p>	Payment (\$)	Annual Interest Rate	Number of Years	Total Number of Payments	Compounding Period	Total Amount (\$)	100	3.5%	8	96	monthly	11 060.25	13.12	5.2%	6	156	bi-weekly	2400		
Payment (\$)	Annual Interest Rate	Number of Years	Total Number of Payments	Compounding Period	Total Amount (\$)																
100	3.5%	8	96	monthly	11 060.25																
13.12	5.2%	6	156	bi-weekly	2400																
N ₂	<p>1. 11.55 years</p> <p>2. \$ 502 483.32</p> <p>3. \$ 5442.82</p>																				
C	<p>1. 35 months less</p> <p>2.a) \$1610.75 b) \$ 183 225</p>																				
E	Mortgage shortened by 6.1 years.																				