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MBF 3C Simple vs Compound Interest: Independent Practice

1. Show the growth of a $\$ 2000$ investment, at both $5 \%$ per year simple interest and 5\% per year, compounded annually, for three years.
[How will you show the growth? What representation(s) will you use?]

[KU]
2. Calculate the interest earned by each of the two investments described in \#1. Show your work.
[Which formulas will you be using?]
[KU, APP]
3. $\$ 1500$ was borrowed at an annual, simple interest rate of $6 \%$. $\$ 450$ was paid in interest. Determine the length of time, in months, for which the money was borrowed. Show your work.
[What is it that you're trying to find? I = Prt]
[APP, T/PS]

|  | Simple | Compound |
| :---: | :---: | :---: |
| Amount, A <br> (Total of Principal and <br> Interest; the "Future <br> Value") | $\mathrm{A}=\mathrm{P}+$ Prt | $\mathrm{A}=\mathrm{P}(1+\mathrm{i})^{\mathrm{n}}$ |
| Interest, I | $\mathrm{I}=$ Prt | $\mathrm{I}=\mathrm{A}-\mathrm{P}$ |

1. Tables of values, graphs, or equations could be used to model the growth of each investment.
2. Simple: \$2300 Compound: \$2315.25
3. Time $=5$ years $=60$ months
