$\qquad$

1. Find the total amount each year and the amount of interest per year if charged simple interest. You borrow $\$ 5,000$ at $12 \%$. $\mathrm{A}=\mathrm{P}+(\mathrm{Pr}) \mathrm{t}$.

|  | Total Amount | Interest Only |
| :--- | :--- | :--- |
| Year 1 |  |  |
| Year 2 |  |  |
| Year 3 |  |  |
| Year 4 |  |  |
| Year 5 |  |  |

2. Do you notice a pattern in the "interest only" column of problem 1? What does it mean?
3. Find the total amount each year and the amount of interest per year if charged Compound interest. You borrow $\$ 5,000$ at $12 \% . A=P(1+r)^{\mathrm{t}}$.

|  | Total Amount | Interest Only |
| :--- | :--- | :--- |
| Year 1 |  |  |
| Year 2 |  |  |
| Year 3 |  |  |
| Year 4 |  |  |
| Year 5 |  |  |

4. Find the total amounts only using both simple interest and compound interest.
Simple Interest: $\mathrm{A}=\mathrm{P}+(\operatorname{Pr}) \mathrm{t}$
Compound Interest: $\mathrm{A}=\mathrm{P}(1+\mathrm{r})^{\mathrm{t}}$
a. $\$ 2,000$ at $12 \%$ for 3 years

| Simple | Compound |
| :--- | :--- |
|  |  |
|  |  |

b. $\$ 5,000$ at $12 \%$ for 20 years

| Simple | Compound |
| :--- | :--- |
|  |  |
|  |  |

5. If you owe money which method would you hope you were being charged? (Simple or Compound)

Why?
6. If you were the bank charging the interest which method are you likely to use? (Simple or Compound)

Why?

