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## Logarithm Word Problems - Step-by-Step Lesson

Reed works for a very large multinational company. He is investing in his future. He saved for several years and amassed $\$ 60,200$. He puts it into a guaranteed government bond at 8\% compounded annually interest rate for 4 years. What is his total return on this investment when he cashes in his bond?


## Explanation:

Let's defining the parameters:
$P=$ principal amount $=\mathbf{6 0 , 2 0 0}$
$\mathbf{R}=$ annual rate of interest ( $\mathbf{8 \%}$ or 0.08)
$n=$ number of years the amount is deposited $(\mathbf{6 0 , 2 0 0})$
A =amount of money accumulated after $\mathbf{n}$ years, including interest.

$$
\begin{aligned}
\text { Compound amount }(A) \quad=P(1+R / 100)^{n} \\
=60,200(1+8 / 100)^{4} \\
=\$ 81,901.44
\end{aligned}
$$

