8.1 – Simple Interest

Formulas:

$I = Prt$ → time (years)

↳ rate, simple interest rate

↳ Principal → initial investment

↳ interest earned

$A = P + I$ → interest earned.

↳ principal

↳ Final Amount

Example 1: $\sim P$ $\sim t$ $\sim 0.075 = r$

Mike invests $6000 for 5 years at 7.5% simple interest. How much interest will Mike earn and how much well he have in 5 years?

$I = Prt$

$I = (6000)(0.075)(5)$

$I = 2,250$

$A = P + I$

$A = 6000 + 2256$

$A = \$8,250$

Example 2: $\sim I$ $\sim P$ $\sim t$

Melanie earns $720 in simple interest on her initial $4200 after saving for 8 years. What is her interest rate?

$I = Prt$

$720 = \dfrac{(4200)\, r\, (8)}{(4200)(8)}$

$3360 \quad (4200)(8)$

$0.021 = r$

∴ the simple interest rate is 2.1%