

1. Bob put \$700 into an account that has a simple interest rate of 12.3% per year. At the end of 9 years, how much interest will have earned?

Solve by either method:

$$\begin{array}{ll}
 I = Prt & A = P(1 + rt) \\
 I = 700 * .123 * 9 & A = 700(1 + .123 * 9) \\
 I = 774.9 & A = 1474.9 \\
 & I = A - P \\
 & I = 1474.9 - 700
 \end{array}$$

Answer: \$774.90

2. What is the effective yield of an account that pay interest at a rate of 7% per year compounded monthly?

$$\text{eff}(7,12) = 7.229\%$$

3. Anthony invested a sum of money 5 years ago in an account that paid interest at the rate of 8%/year compounded quarterly. His investment is now worth \$22,000. How much did he originally invest?

$$N = 5 * 4$$

$$I = 8$$

$$PV = \text{solve for this}$$

$$Pmt = 0$$

$$Fv = 22000$$

$$P/y = 4$$

$$C/y = 4$$

Answer: \$14,805.37

4. Susan deposited \$8,000 into an account. The account earns interest at a rate of 6.5% per year compounded monthly. Find the ballance of the account if she has withdraws \$125 every month for 5 years.

$$N = 5 * 12$$

$$I = 6.5$$

$$PV = -8000$$

$$Pmt = 125$$

$$Fv = \text{solve for this}$$

$$P/y = 12$$

$$C/y = 12$$

Answer: \$2,228.29