

1. Bob put \$900 into an account that has a simple interest rate of 8.7% per year. At the end of 5 years, how much interest will have earned?

Solve by either method:

$$\begin{array}{ll} I = Prt & A = P(1 + rt) \\ I = 900 * .087 * 5 & A = 900(1 + .087 * 5) \\ I = 391.5 & A = 1291.5 \\ & I = A - P \\ & I = 1291.5 - 900 \end{array}$$

Answer: \$391.50

2. What is the effective yield of an account that pay interest at a rate of 8% per year compounded quarterly?

$$\text{eff}(8,4) = 8.243\%$$

3. Anthony invested a sum of money 3 years ago in an account that paid interest at the rate of 6%/year compounded monthly. His investment is now worth \$19,000. How much did he originally invest?

$$N = 12 * 3$$

$$I = 6$$

PV = solve for this

$$\text{Pmt} = 0$$

$$Fv = 19000$$

$$P/y = 12$$

$$C/y = 12$$

Answer: \$15877.25

4. Susan deposited \$14,000 into an account. The account earns interest at a rate of 4.2% per year compounded quarterly. Find the ballance of the account if she has withdraws \$350 every quarter for 7 years.

$$N = 7 * 4$$

$$I = 4.2$$

$$PV = -14000$$

$$\text{Pmt} = 350$$

Fv = solve for this

$$P/y = 4$$

$$C/y = 4$$

Answer: \$7431.91