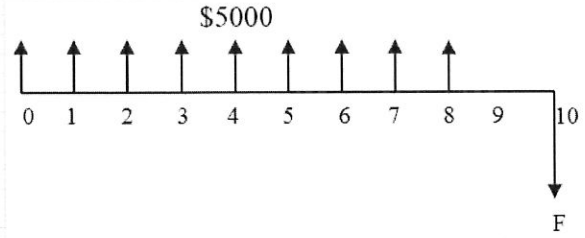
Quiz 1 - Solution

1.



All problems were computed using formulas. The use of factors from the tables may result in slightly different numbers.

This is a value in year 8 — Shifts the value from Year 8 to Year 10

$$F := 5000 \cdot F_A(6\%, 9) \cdot F_P(6\%, 2)$$

$$F = 64558$$

or

This is a value in year −1 — Shifts from Year −1 to Year 10

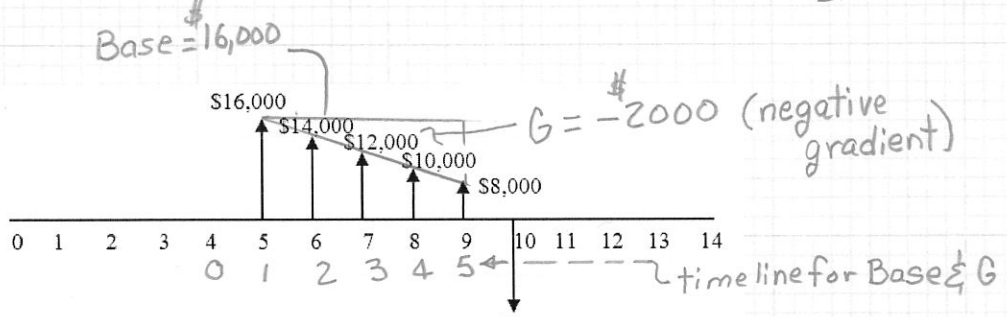
$$F := 5000 \cdot P_A(6\%, 9)\ F_P(6\%, 11)$$

$$F = 64558$$

<---This contains Mathcad functions for computing the factors. It looks a little different than what we have used in class for factor notation, but should be easy enough to recognize. If you have questions, check with the professor.

i.e. $F_P(6\%, 2)$ is a Mathcad function that represents $\left[\frac{F}{P}, 6\%, 2\right]$

2.



PW of uniform series (Base value in Year 4)

Determines PW of gradient ⇒ value in Year 4

$$F := 16000 \cdot P_A(6\%, 5) \cdot F_P(6\%, 6) - 2000 \cdot P_G(6\%, 5) \cdot F_P(6\%, 6)$$

$$F = 73094.48$$

Shifts Base and Gradient from Year 4 to Year 10

5 is the number of years for both Base & Gradient