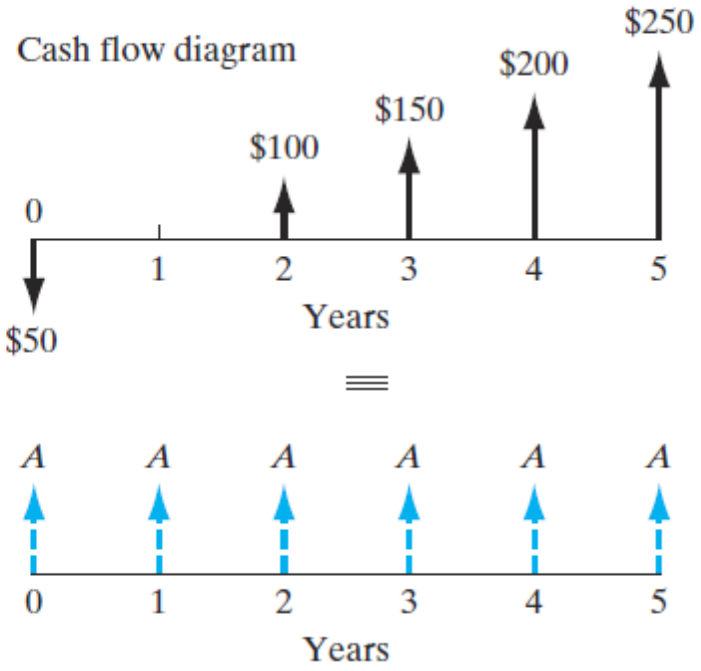
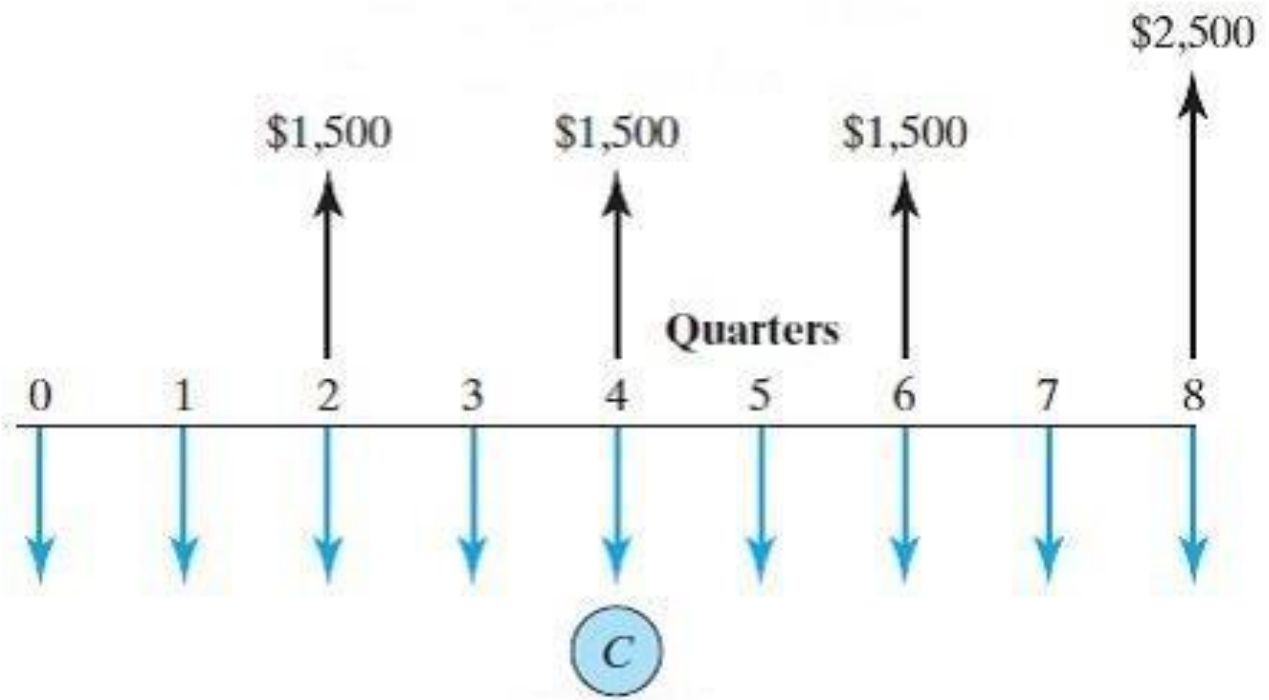
Find the equivalent equal payment series (A) using an A/G factor such that the two cash flows are equivalent at 10% compounded annually.



Present Worth of Cash Flow 1
= - 50 + {100 (P/A, 10%, 4)+ 50 (A/G, 10%, 4) * (P/A, 10%, 4)}
* (P/F, 10%, 1)

= - 50 + {100 * 3.170 + (50 * 1.381)* 3.170} * 3.170}0.9091
= - 50 + {317 + 218} * 0.9091
= - 50 + 479.64
= $465
Present Worth of Cash Flow 2 = A + A * (P/A, 10%, 5)
= A + A * (3.791)
= 4.791A
Equating the Present Worth of Cash Flow 1 to the Present Worth of Cash Flow 2 we have
465 = 4.791A
A = 465 / 4.791
A = 97 USD

What is the amount of deposits C, such that you will be able to withdraw the amounts in the cash flow diagram shown below, if the interest rate is 3 %.



$$C(F/P, 3\ \%, 8) + C(F/A, 3\ \%, 8)$$

$$= 1500(F/P, 6\%, 3) + 1500(F/P, 6\%, 2) + 1500(F/P, 6\%, 1) + 2500$$

$$C(1.269) + C(8.901) = 1794 + 1690 + 1592 + 2500$$

$$C = \frac{7576}{10.17} = \underline{\underline{745.}}$$

The following equation describes the conversion of a variable cash flow to an annual equivalent cash flow at the company's interest of 4%:

$$A=\{-1000+400(P/A,4\%,3)(P/F,4\%,2) - 300(P/A,4\%,4)(P/F,4\%,3) -50(P/G,4\%,3) + 4000(P/F,4\%,8)\} (A/P,4\%,7)$$

Reconstruct the original cash flow diagram.