(a)
$$\phi_1 = a_1$$
 : $a_1 = \phi_1$
 $\phi_2 = a_1 + a a_2$: $a_2 = (\phi_2 - \phi_1)/a$

$$\phi_2 = a_1 + a a_2$$
 : $a_2 = (\phi_2 - \phi_1)/a$

 $\phi_3 = a_1 + b a_3$: $a_3 = (\phi_3 - \phi_1)/b$

 $\phi = \phi_1 + \frac{\phi_2 - \phi_1}{a_1} \times + \frac{\phi_3 - \phi_1}{b_1} y$