$$B_w = \frac{P_w}{P_{bar}} \qquad 3C\text{-}1$$

$$C = \frac{A}{R\left(1 - B_w\right)} \qquad 3C\text{-}2$$

$$C = \frac{\dfrac{P_{tf}}{T_{tf}}}{\dfrac{P_t}{T_t} - \dfrac{P_{ti}}{T_{ti}}} \qquad \frac{A}{R\left(1 - B_w\right)} \qquad 3C\text{-}3$$