4. $\frac{du}{dt} = u^q$

$u^{-q}\, du = 1\, dt$

Jika $q = 1$

$w(u) = t + C$

$u = Ae^t$

$u = e^t$

Jika $q \neq 1$ & $t(1-q) + 1 > 0$

$(1-q)^{-1} u^{-q+1} = t + C$

$u^{-q+1} = t(1-q) + C(1-q)$

$C(1-q) = A$

$u = (t(1-q) + A)^{1/1-q}$

$u = (t(1-q) + 1)^{1/1-q}$