y_2 y_1

(A) $24.20062 = 24.23996\, r\left(1 - \frac{24.23996}{K}\right)$

y_4 y_3

(B) $24.07902 = 26.52723\left(1 - \frac{26.52723}{K}\right)$

(B) $\Rightarrow \frac{24.07902}{26.52723} \times \frac{K}{K-26.52723} = r$

Sub in to (A)

~~$24.20062 = 0.90771\left(\frac{K}{K-26.52723}\right)(24.23996 - K)$~~

$$24.20062 = \left(\frac{0.90771\,K}{K-26.52723}\right)24.23996\left(1 - \frac{24.23996}{K}\right)$$

$$\Rightarrow 0.99838 = 0.90771\left(\frac{K}{K-26.52723}\right)\left(\frac{K-24.23996}{K}\right)$$

$$\Rightarrow 1.09989 = \frac{K-24.23996}{K-26.52723}$$

$$\Rightarrow 1.09989(K-26.52723) = K-24.23996$$
$$\Rightarrow K(1.09989-1) = 1.09989\times 26.52723 - 24.23996$$
$$\Rightarrow 0.09989\,K = 4.93708$$
$$\Rightarrow K = 49.42517$$
$$\Rightarrow r = 0.90771 \times \frac{49.42517}{49.42517 - 26.57723}$$
$$= 1.96358$$