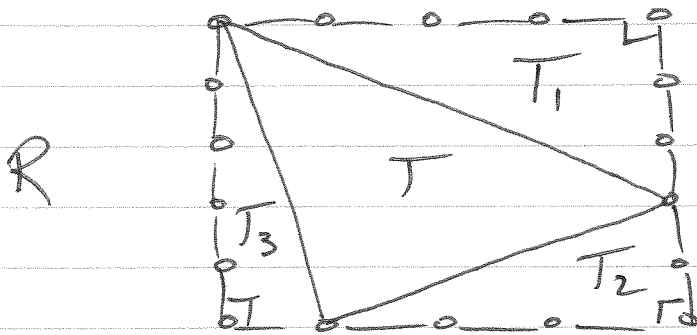


arbitrary triangle



$$\begin{aligned}
 i(R) + \frac{1}{2}o(R) - 1 &= i(T_1) + \frac{1}{2}o(T_1) - 1 \\
 &+ i(T_2) + \frac{1}{2}o(T_2) - 1 \\
 &+ i(T_3) + \frac{1}{2}o(T_3) - 1 \\
 &+ i(T) + \frac{1}{2}o(T) - 1
 \end{aligned}$$

$$\begin{aligned}
 \text{area}(R) &= \text{area}(T_1) + \text{area}(T_2) + \text{area}(T_3) \\
 &+ i(T) + \frac{1}{2}o(T) - 1
 \end{aligned}$$

$$\begin{aligned}
 \text{area}(T) &= \text{area}(R) - \text{area}(T_1) - \text{area}(T_2) - \text{area}(T_3) \\
 &= i(T) + \frac{1}{2}o(T) - 1 \quad !
 \end{aligned}$$