



~~$R_{th} + 1k$~~

$$\frac{R_{th}}{R_{th} + 1k\Omega} \cdot 5V = X ;$$

$$\frac{5V \cdot R_{th}}{R_{th} + 1k\Omega} = X ; \quad 5V \cdot R_{th} = X (R_{th} + 1k\Omega) .$$

$$5V \cdot R_{th} = X \cdot R_{th} + 1k\Omega \cdot X ;$$

$$R_{th} [5V - X] = 1k\Omega \cdot X$$

$$R_{th} = \frac{1k\Omega}{5V - X} .$$