In[•]:=
```
Steps@Int[(Sec[x]^2 + Sec[x]^2*Tan[x])/((2 - Tan[x])*Sqrt[1 + Tan[x]^3]), x]
```

▶ $\int F(\tan(a+b\,x))\,\mathbb{d}x \;\longrightarrow\; \dfrac{\text{Subst}\left(\int \frac{F(x)}{1+x^2}\,\mathbb{d}x,\ x,\ \tan(a+b\,x)\right)}{b}$

$$\text{Subst}\left[\text{Int}\left[\frac{1+x}{(2-x)\sqrt{1+x^3}},\ x\right],\ x,\ \text{Tan}[x]\right]$$

▶ $\int \dfrac{e+f\,x}{(c+d\,x)\sqrt{a+b\,x^3}}\,\mathbb{d}x \;\longrightarrow\; -\dfrac{(2\,e)\,\text{Subst}\left(\int \frac{1}{9-a\,x^2}\,\mathbb{d}x,\ x,\ \frac{\left(1+\frac{f\,x}{e}\right)^2}{\sqrt{a+b\,x^3}}\right)}{d}$

$$\text{Dist}\left[2,\ \text{Subst}\left[\text{Int}\left[\frac{1}{9-x^2},\ x\right],\ x,\ \frac{(1+\text{Tan}[x])^2}{\sqrt{1+\text{Tan}[x]^3}}\right],\ x\right]$$

▶ $\int \dfrac{1}{a+b\,x^2}\,\mathbb{d}x \;\longrightarrow\; \dfrac{\tanh^{-1}\left(\frac{\sqrt{-b}\,x}{\sqrt{a}}\right)}{\sqrt{a}\,\sqrt{-b}}$

$$\frac{2}{3}\,\text{ArcTanh}\left[\frac{(1+\text{Tan}[x])^2}{3\sqrt{1+\text{Tan}[x]^3}}\right]$$

Copy Steps

Out[•]=
$$\frac{2}{3}\,\text{ArcTanh}\left[\frac{(1+\text{Tan}[x])^2}{3\sqrt{1+\text{Tan}[x]^3}}\right]$$