$$\frac{s \tan\left(-\arctan\left(\frac{\sin(t)}{\cos(t)}\right) + \theta\right) \tan\left(-\arctan\left(\frac{(1 - \cos(t))\sin(t)}{-(1 - \cos(t))\cos(t) + a}\right) + \theta\right) a}{\tan\left(-\arctan\left(\frac{\sin(t)}{\cos(t)}\right) + \theta\right) + \tan\left(-\arctan\left(\frac{(1 - \cos(t))\sin(t)}{-(1 - \cos(t))\cos(t) + a}\right) + \theta\right)}$$