

$$\boxed{29} \quad \tan^2(75^\circ) = \frac{1 - \cos(2 \cdot 75^\circ)}{1 + \cos(2 \cdot 75^\circ)} = \frac{1 - \cos 150^\circ}{1 + \cos 150^\circ} = \frac{1 - \left(-\frac{\sqrt{3}}{2}\right)}{1 + \left(-\frac{\sqrt{3}}{2}\right)} = \frac{\frac{2 + \sqrt{3}}{2}}{\frac{2 - \sqrt{3}}{2}} = \frac{2 + \sqrt{3}}{2 - \sqrt{3}}$$

Numerical support is shown in *Figure 29*.

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(tan(75))^2
  13.92820323
(2+sqrt(3))/(2-sqrt(3))
  13.92820323
  
```

*Figure 29*