Unit weight of soil $\gamma := 18\frac{kN}{m^3}$

Friction angle $\phi := 30deg$

Depth $z := 5m$

Pressure $\sigma := \gamma \cdot z$ $\sigma = 90\,kPa$

Active earth pressure $K_a := \tan\left(45deg - \frac{\phi}{2}\right)$ $K_a = 0.577$

With explicit -function I can get this:

Horizontal soil pressure $\sigma_h := \sigma \cdot K_a = 18 \cdot \frac{kN}{m^3} \cdot z \cdot \tan\left(45 \cdot deg - \frac{30 \cdot deg}{2}\right)$ $\sigma_h = 51.962\,kPa$

But, what I would like to see is $\sigma_h := \sigma \cdot K_a$ =90kPa*0.577=51.962kPa **<= Is this somehow possible?**