Tedds Trig functions degrees and radians

Where the unit of an angle is not specified, Tedds trig functions assume the units are *degrees*, not radians (unlike MS Excel for example). If an angle is in radians it is necessary to either:

* Use the correct unit ‘rads’ in the variable definition or Trig function
* Convert the value to degrees

1 = /4 = **0.01371** rads; **🗴**

1 = **0.78540** degs; **🗴**

tan(1) = **0.014**; sin(1) = **0.014**; cos(1) = **0.99991**; **🗴**

tan(0.7854 rads) = **1.000**; sin(0.7854 rads) = **0.707**; cos(0.7854 rads) = **0.707**; **🗸**

tan(45) = **1.000**; sin(45) = **0.707**; cos(45) = **0.707**; **🗸**

tan(45°) = **1.000**; sin(45°) = **0.707**; cos(45°) = **0.707**; **🗸**

The result of /4 is dimensionless since both ‘4’ and ‘’ are just two dimensionless numbers. If the result of an equation is dimensionless but should actually be in radians then this must be specified by applying the unit ***in the equation*** so the result is correctly dimensioned. You can check the variables list to see the correct value is stored away (in degrees).

Use the Radians Unit in equation

2 = (/4)rads = **0.78540** rads; **🗸**

2 = **45.000** degs; **🗸**

tan(2) = **1.000**; sin(2) = **0.707**; cos(2) = **0.707**; **🗸**

Convert to degrees

To convert a value in radians to degrees we multiply by $\frac{180}{π}$ hence:

3 = (/4)(180/) = **0.78540** rads; **🗸**

3 = **45.000** degs; **🗸**

tan(3) = **1.000**; sin(3) = **0.707**; cos(3) = **0.707**; **🗸**