Trigonometric identities are mathematical equations that involve trigonometric functions.

Two common trigonometric identities are sine squared x plus cosine squared x equals one, and tan x equals sine x over cosine x.

An example would be simplifying tan squared x times cosine squared x.

Tan squared x is the same as tan x times tan x.

Tan x is equal to sin x over cos x, so the equation can be rewritten as sin x over cos x squared times cos squared x.

Sin x over cos x becomes sin squared x over cos squared x, so the equation is sin squared x over cos squared x times cos squared x.

The final stage is that the cos squared x in the denominator cancels with the other cos squared x, leaving the answer as sin squared x.

Remember that sometimes sin squared x plus cos squared x equals one, needs to be rearranged to be used in a proof.

Cos squared x equals one subtract sin squared x and sin squared x equals one subtract cos squared x.