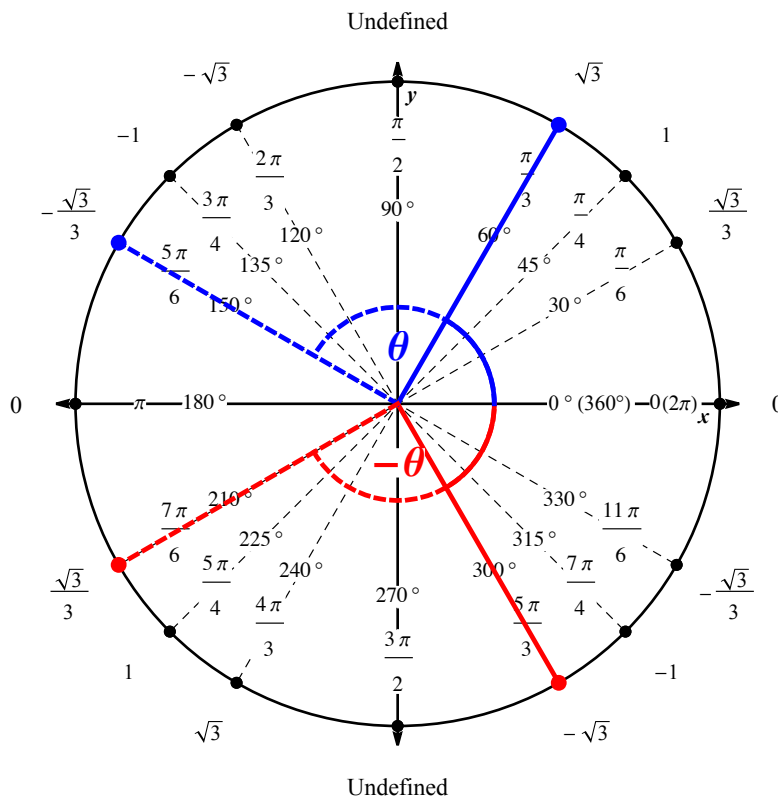


# Trigonometry 23: Parity Identities (Odd and Even Functions) III

Let's use the Unit Circle to determine the relationship between  $\tan(\theta)$  and  $\tan(-\theta)$ :



If we look at enough values of  $\tan(-\theta)$  we can convince ourselves that

$$\tan(-\theta) = -\tan(\theta)$$

This is also a parity identity, and it also means that tangent is an odd function. Recall that odd functions, have graphs that have reflective symmetry through the origin (which is the same as 180° rotational symmetry):

