

75 ALGORITHM $f(t) = \tan t - 5$

Step 1: Input a real number t .

Step 2: Let θ be an angle of t radians in standard position.

Step 3: Determine the point (x, y) where the terminal side of θ intersects the unit circle.

Step 4: If $x \neq 0$, output $\frac{y}{x} - 5$, the value of $\tan t - 5$.

The angle $\theta = 0$ intersects the unit circle at $(1, 0)$. Therefore $f(0) = \tan 0 - 5 = 0 - 5 = -5$.