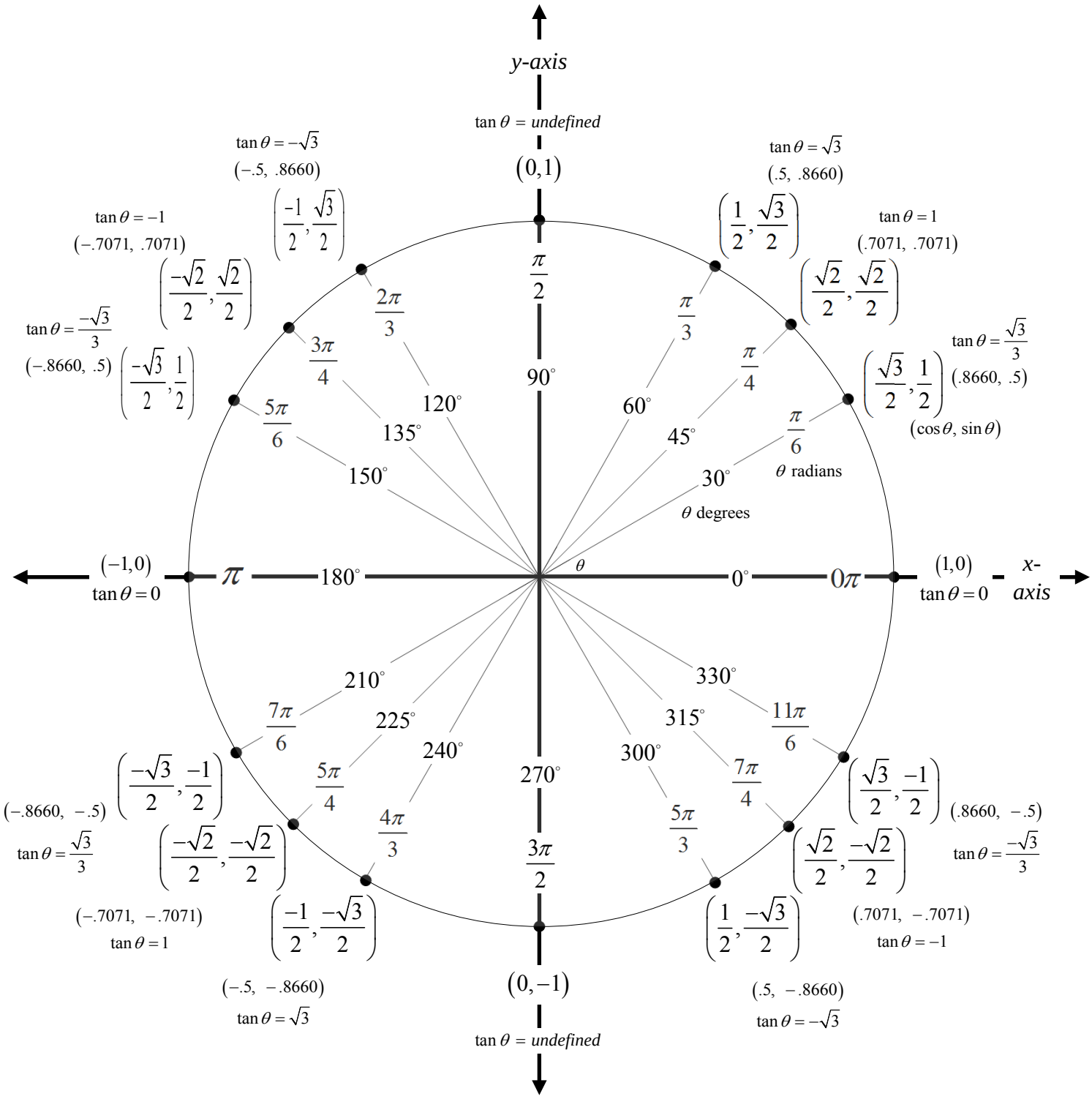
y-axis
tan θ = undefined
(0,1)
tan θ = −√3
(−.5, .8660)
(−1/2, √3/2)
tan θ = √3
(.5, .8660)
(1/2, √3/2)
tan θ = −1
(−.7071, .7071)
(−√2/2, √2/2)
tan θ = 1
(.7071, .7071)
(√2/2, √2/2)
tan θ = −√3/3
(−.8660, .5)
(−√3/2, 1/2)
tan θ = √3/3
(.8660, .5)
(√3/2, 1/2)
(cos θ, sin θ)
π/2
90°
2π/3
120°
π/3
60°
3π/4
135°
π/4
45°
5π/6
150°
π/6
30°
θ radians
θ degrees
θ
(−1,0)
tan θ = 0
π
180°
0°
0π
(1,0)
tan θ = 0
x-axis
210°
7π/6
225°
240°
5π/4
4π/3
270°
3π/2
300°
5π/3
315°
7π/4
330°
11π/6
(−.8660, −.5)
tan θ = √3/3
(−√3/2, −1/2)
(−√2/2, −√2/2)
(−.7071, −.7071)
tan θ = 1
(−1/2, −√3/2)
(−.5, −.8660)
tan θ = √3
(0,−1)
tan θ = undefined
(1/2, −√3/2)
(.5, −.8660)
tan θ = −√3
(√2/2, −√2/2)
(.7071, −.7071)
tan θ = −1
(√3/2, −1/2)
(.8660, −.5)
tan θ = −√3/3