

Name:

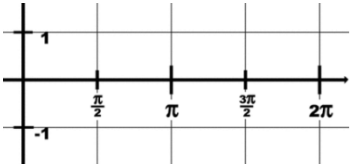
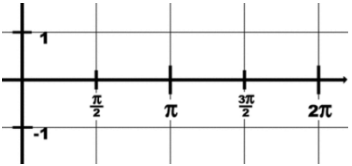
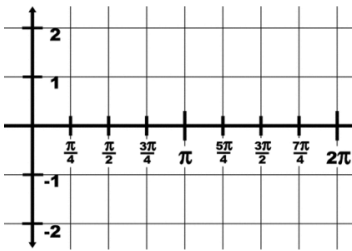
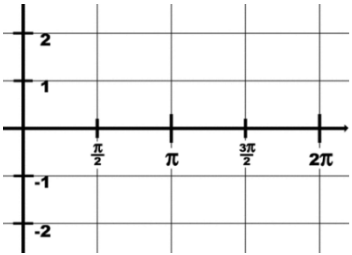
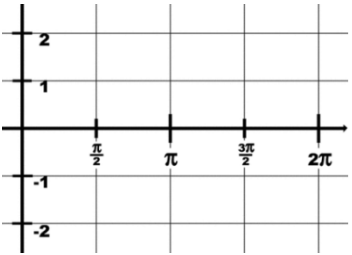
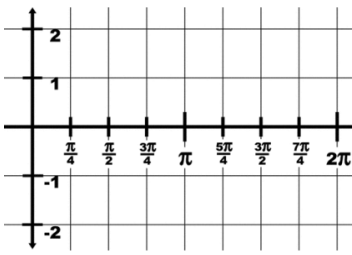
Period:

First Score:	First attempt due:	Final Score:
	Final corrections due:	

Practice:

Parent Graphs of Trig Functions

Sketch the parent graph of each trig function without a graphing calculator using its key features (maximums, minimums, zeros, and/or asymptotes.)

1] Sine 	2] Cosine 	3] Tangent 
4] Cosecant 	5] Secant 	6] Cotangent 

List all trig functions with the given characteristics: (sin, cos, tan, csc, sec, and/or cot).

- | | |
|---|---|
| 7] No y-intercept: _____, _____ | 17] Range $(-\infty, \infty)$: _____, _____ |
| 8] y-intercept of 1: _____, _____ | 18] Range $(-\infty, -1] \cup [1, \infty)$: _____, _____ |
| 9] Absolute max of 1: _____, _____ | 19] Range $[-1, 1]$: _____, _____ |
| 10] Absolute min of -1: _____, _____ | 20] Period of π : _____, _____ |
| 11] Relative max of -1: _____, _____ | 21] Period of 2π : _____, _____, _____, _____ |
| 12] Relative min of 1: _____, _____ | 22] No zeros: _____, _____ |
| 13] No abs. max or min: _____, _____, _____, _____ | 23] Zeros at $\frac{\pi}{2} \pm \pi(k)$: _____, _____ |
| 14] Asymptotes at $\pm\pi(k)$: _____, _____ | 24] Zeros at $\pm\pi(k)$: _____, _____ |
| 15] Asymptotes at $\frac{\pi}{2} \pm \pi(k)$: _____, _____ | 25] Continuous wave shape: _____, _____ |
| 16] Domain $(-\infty, \infty)$: _____, _____ | 26] Alternating u-shapes: _____, _____ |

Fill in the blanks to make each statement true. (There can be more than one correct solution.)

- 27] The absolute maximums of sine coincide with the relative minimums of _____.
- 28] The absolute minimums of cosine coincide with the relative maximums of _____.
- 29] The asymptotes of cosecant form the zeros of _____.
- 30] The graph of sine has the same shape as _____, but they are $\frac{\pi}{2}$ units apart.
- 31] The graphs of _____ and _____ produce positive y-values over the interval $(\pi, \frac{3\pi}{2})$.
- 32] The graphs of _____ and _____ produce negative y-values over the interval $(\frac{3\pi}{2}, 2\pi)$.
- 33] The graphs of _____, _____, and _____ are increasing over the interval $(0, \frac{\pi}{2})$.
- 34] The graphs of _____, _____, and _____ are decreasing over the interval $(0, \frac{\pi}{2})$.
- 35] The graphs of _____ and _____ have the same amplitude.
- 36] The graphs of _____ and _____ intersect at $(\frac{\pi}{2}, 1)$.
- 37] The graphs of _____ and _____ intersect at $(\frac{\pi}{4}, \frac{\sqrt{2}}{2})$.
- 38] The graphs of _____ and _____ intersect at $(\pi, -1)$.
- 39] The graphs of _____ and _____ intersect at $(\frac{5\pi}{4}, 1)$.
- 40] The graphs of tangent and _____ never intersect.