Name: _____ Date: _____ IB Math A&A SL

Lesson 6.1A – Graphs of Tangent & Cotangent

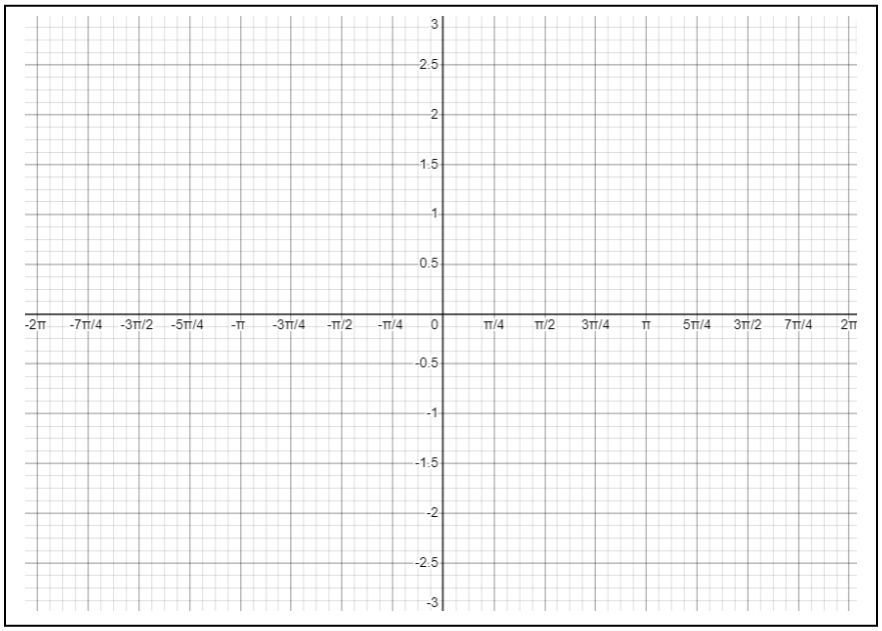
I. Warm-Up

1. Complete the table below (You're all PROS at this now!)

x	$-\pi$	$-\frac{3\pi}{4}$	$-\frac{\pi}{2}$	$-\frac{\pi}{4}$	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π
$y = \tan x$									

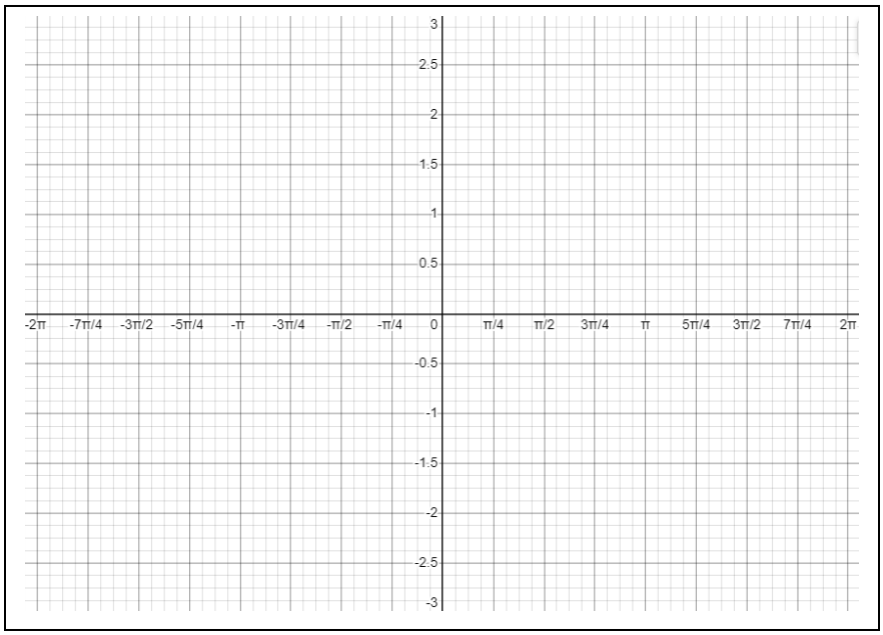
II. Graph of y= tan(x)

2. Copy the graph of tangent.



Properties of y=tan x

III. Graph of y= cot(x)



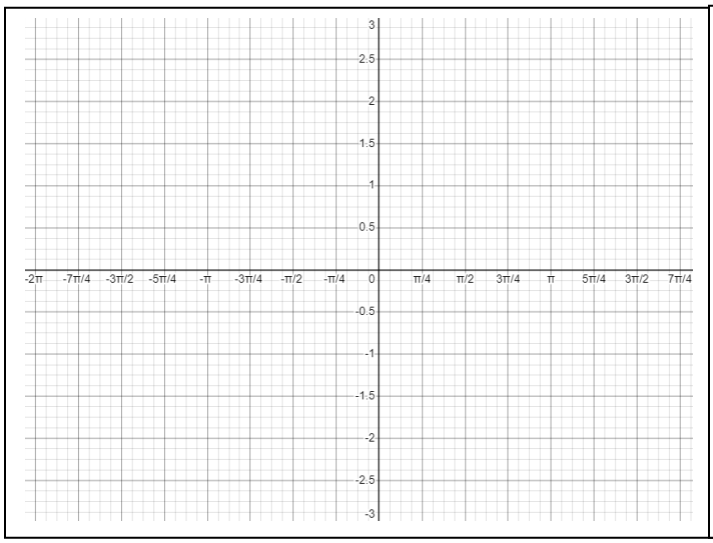
Properties of y=cot x

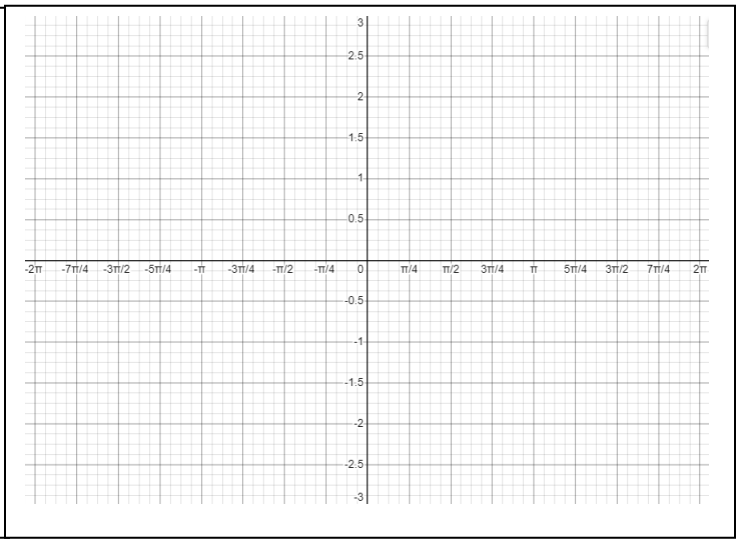
IV. Graphing $y = \mathbf{A} \cdot \tan B(x - C) + D$

Identify the period and the phase shift. Then graph the function. Draw 3 full periods.

3. $y = 3\tan\left(2x + \frac{\pi}{4}\right)$

4. $y = \tan(\frac{\pi x}{3} + \pi)$





V. Graphing $y = \mathbf{A} \cdot \cot B(x - C) + D$

Identify the period and the phase shift. Then graph the function. Draw 3 full periods.

5. $y = 3\cot(\frac{x}{2} - \frac{\pi}{2})$

6. $y = -\cot(\pi x - 2\pi)$