

The Secret of Graphing Secant and Cosecant Functions Pre Cal Honors 5 4

Lesson 234 | Precalculus | Secant and cosecant graphs

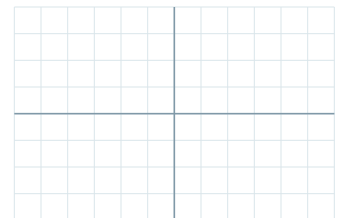
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Original practice aligned to the saved video title.

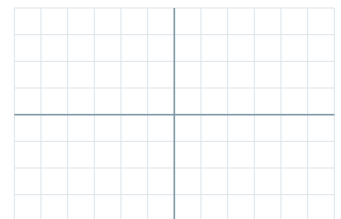
Name: _____ Date: _____ Show your reasoning.

01

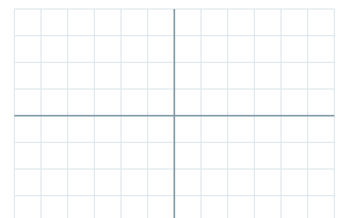
Graph $y=12\csc(3(x-(-5)))+3$. Give period, range, and all vertical asymptotes.

**02**

Graph $y=8\sec(6(x-(-8)))+7$. Give period, range, and all vertical asymptotes.

**03**

Graph $y=12\csc(6(x-(-6)))+11$. Give period, range, and all vertical asymptotes.



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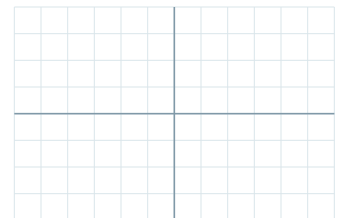
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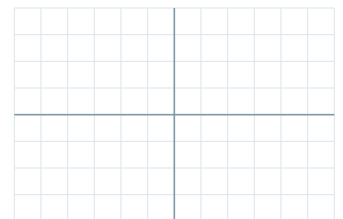
Name: _____ Date: _____ Show your reasoning.

04

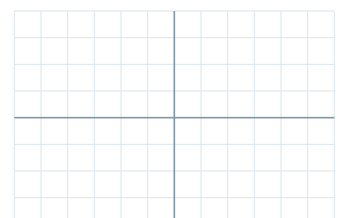
Graph $y=10\sec(5(x-(-4)))+8$. Give period, range, and all vertical asymptotes.

**05**

Graph $y=10\csc(7(x-(-7)))+8$. Give period, range, and all vertical asymptotes.

**06**

Graph $y=4\sec(6(x-(-7)))+2$. Give period, range, and all vertical asymptotes.



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01

Graph $y=12\csc(3(x-(-5)))+3$. Give period, range, and all vertical asymptotes.

Period $2\pi/3$. Range $y \leq -9$ or $y \geq 15$. Sine zeros give asymptotes $x=-5+k\pi/3$. k is any integer. Sketch reciprocal branches outside the excluded midline band.

02

Graph $y=8\sec(6(x-(-8)))+7$. Give period, range, and all vertical asymptotes.

Period $2\pi/6$. Range $y \leq -1$ or $y \geq 15$. Cosine zeros give asymptotes $x=-8+(\pi/2+k\pi)/6$. k is any integer. Sketch reciprocal branches outside the excluded midline band.

03

Graph $y=12\csc(6(x-(-6)))+11$. Give period, range, and all vertical asymptotes.

Period $2\pi/6$. Range $y \leq -1$ or $y \geq 23$. Sine zeros give asymptotes $x=-6+k\pi/6$. k is any integer. Sketch reciprocal branches outside the excluded midline band.

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04

Graph $y=10\sec(5(x-(-4)))+8$. Give period, range, and all vertical asymptotes.

Period $2\pi/5$. Range $y \leq -2$ or $y \geq 18$. Cosine zeros give asymptotes $x=-4+(\pi/2+k\pi)/5$. k is any integer. Sketch reciprocal branches outside the excluded midline band.

05

Graph $y=10\csc(7(x-(-7)))+8$. Give period, range, and all vertical asymptotes.

Period $2\pi/7$. Range $y \leq -2$ or $y \geq 18$. Sine zeros give asymptotes $x=-7+k\pi/7$. k is any integer. Sketch reciprocal branches outside the excluded midline band.

06

Graph $y=4\sec(6(x-(-7)))+2$. Give period, range, and all vertical asymptotes.

Period $2\pi/6$. Range $y \leq -2$ or $y \geq 6$. Cosine zeros give asymptotes $x=-7+(\pi/2+k\pi)/6$. k is any integer. Sketch reciprocal branches outside the excluded midline band.