Review:

Evaluate the following:

1. $\sin 135°$ $\frac{1}{\sqrt{2}}$

2. $\tan \frac{11\pi}{6}$ $-\frac{1}{\sqrt{3}}$

3. $\csc \frac{5\pi}{4}$ $-\sqrt{2}$

4. $\cot(-450°)$ 0

5. $\cos \frac{2\pi}{3}$ $-\frac{1}{2}$

6. $\cos 53\pi$ -1

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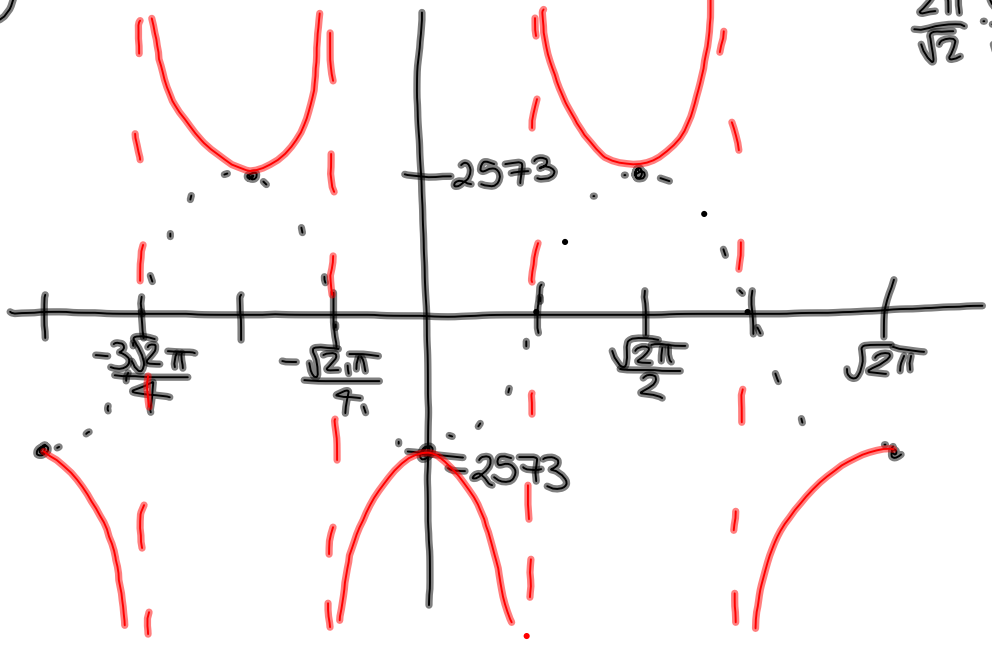
$y = -2573 \sec \sqrt{2} x$

"amp" = 2573

period $= \sqrt{2}\pi$

$\frac{2\pi}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}\pi}{2}$



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$y = f(x+c) + d$

d = vertical shift
if $d > 0$ up
if $d < 0$ down

c = horizontal shift
if $c > 0$ left
if $c < 0$ right

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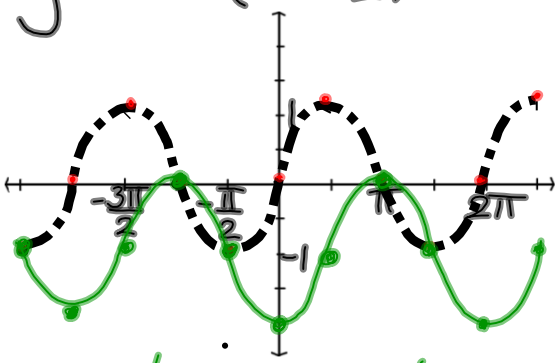
$y = \sin(x + \frac{3\pi}{2}) - 1$



amp: 1
per: 2π
left $\frac{3\pi}{2}$
down 1

simpler equation:
$y = -\cos x - 1$

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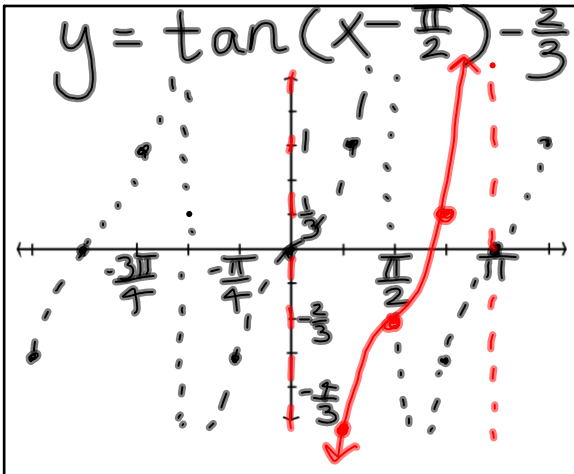
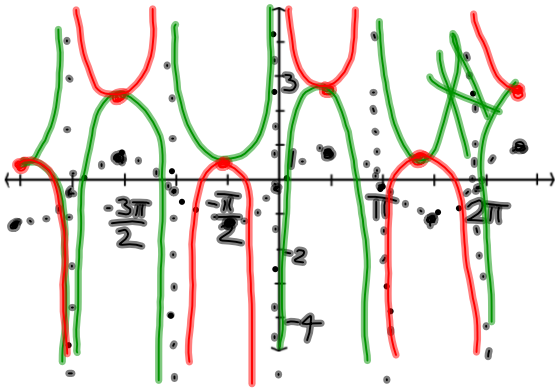
$y = \tan\left(x - \frac{\pi}{2}\right) - \frac{2}{3}$



"amp": 1
per: π
horiz: right $\frac{\pi}{2}$
vert: down $\frac{2}{3}$

(simpler equation: $y = -\cot x - \frac{2}{3}$)



$y = \csc(x + 2\pi) + 2$
"amp": 1
per: 2π
horiz: left 2π
vert: up 2

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$y = f(x) \rightarrow y = af(bx + c) + d$
$= af\left[b\left(x + \frac{c}{b}\right)\right] + d$

$|a|$ = amplitude / "amp" of key reference points

$\frac{2\pi \text{ or } \pi}{|b|}$ = period — tan, cot $-\pi$; others -2π

d = vertical shift — $d > 0$ up; $d < 0$ down

$\frac{c}{b}$ = horizontal shift — $\frac{c}{b} > 0$ left; $\frac{c}{b} < 0$ right

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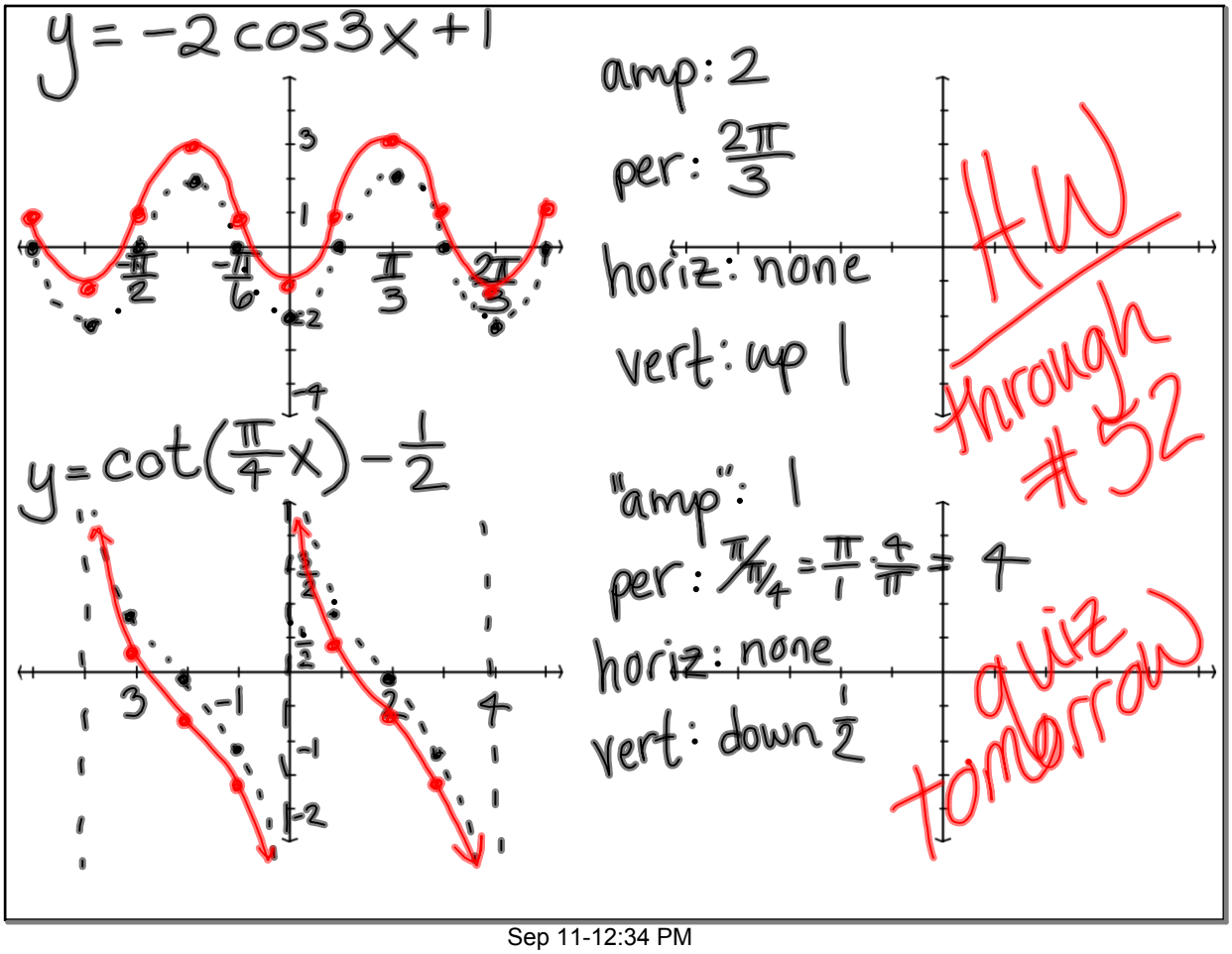

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