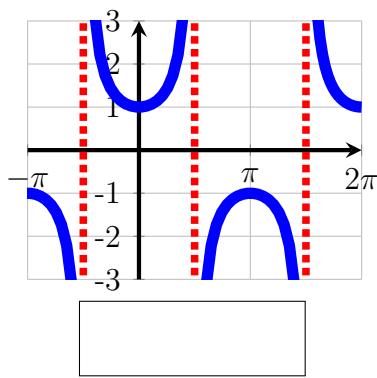
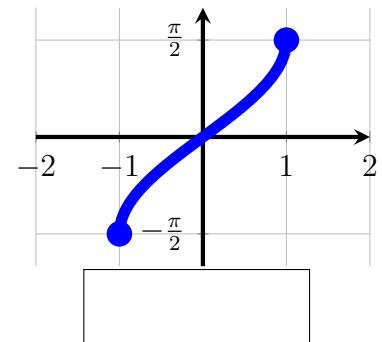
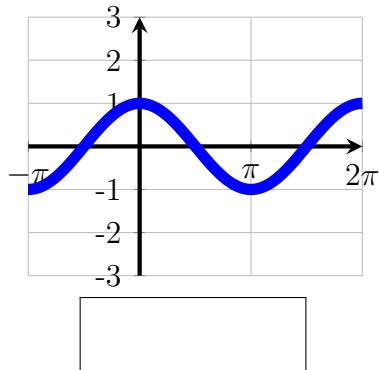
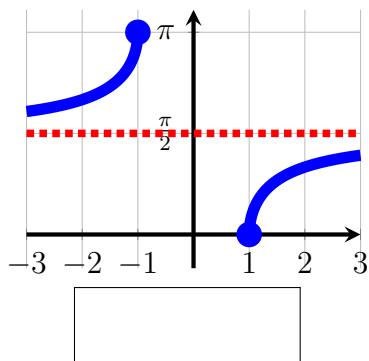
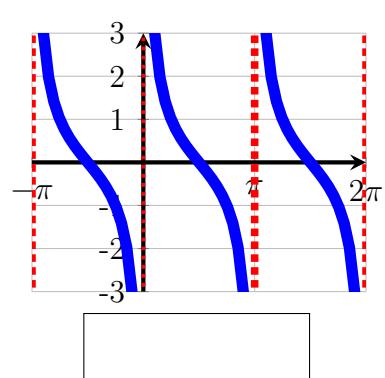
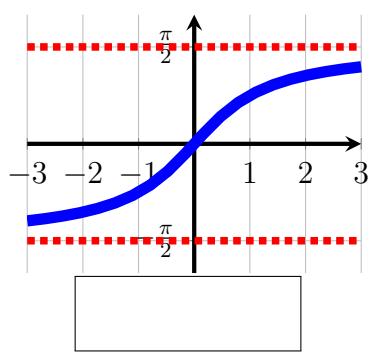
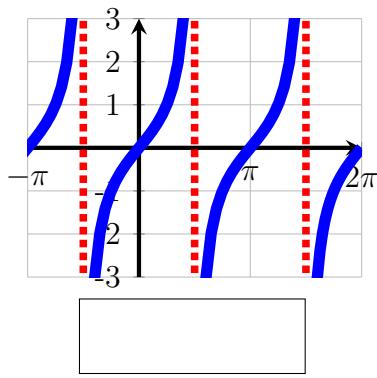
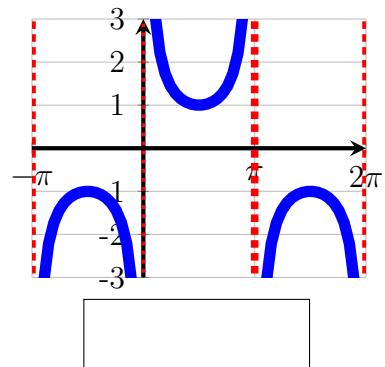
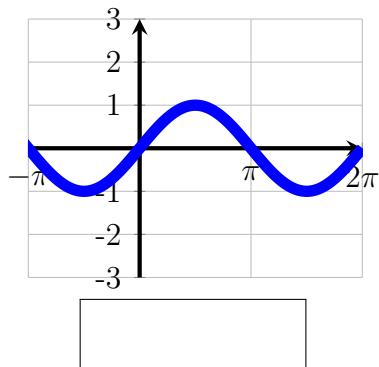
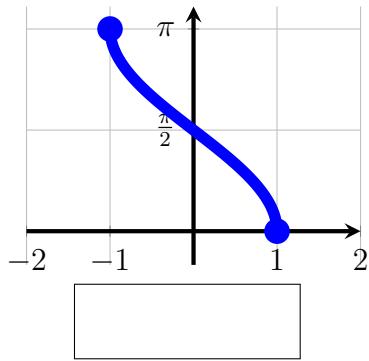


Section 2 Review

1. Identify the following (unshifted) graphs of trigonometric and inverse trigonometric functions.



2. Identify the following descriptions as $\sin x$, $\cos x$, $\sec x$, $\csc x$, $\tan x$, $\cot x$, $\arcsin x$, $\arccos x$, $\text{arcsec } x$, $\arctan x$

Converts slope to angle.

Converts angle to x -coordinate.

Converts angle to height.

Converts angle to distance to wall.

Converts angle to slope.

Converts x -coordinate to angle.

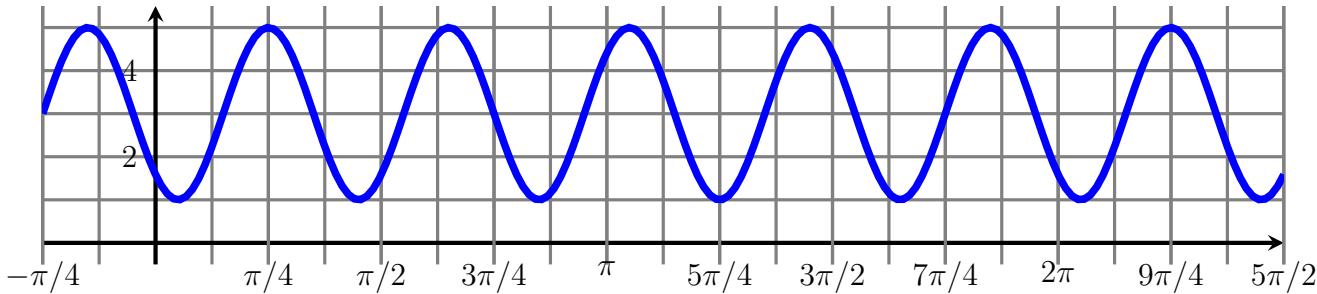
Converts height to angle.

Converts angle to distance to roof.

Converts “wall distance” to angle.

Converts “roof distance” to angle.

3. Identify the indicated values for the graphs of \cos below



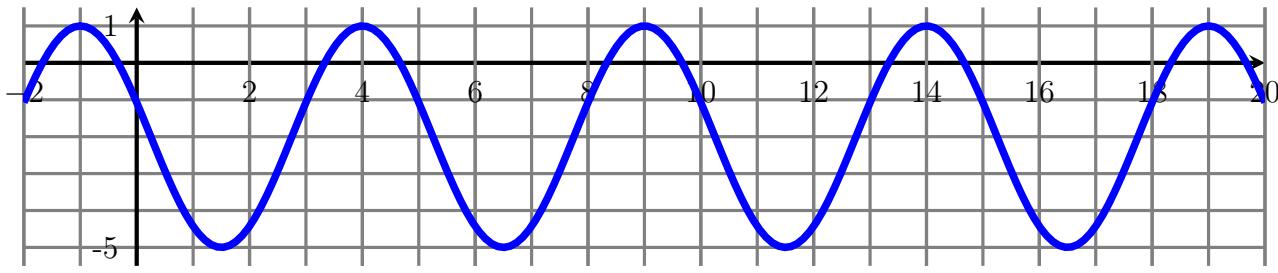
Amplitude =

Period =

Midline =

Frequency =

Shift =



Amplitude =

Period =

Midline =

Frequency =

Shift =

4. Identify the indicated values for the periodic functions below

(a) $f(x) = 2 \sin\left(3(x + \frac{\pi}{4})\right) - 5.$

Amplitude =	<input type="text"/>	Midline =	<input type="text"/>	Shift =	<input type="text"/>
Period =	<input type="text"/>	Frequency =	<input type="text"/>		

(b) $f(x) = 2 - 3 \cos\left(\frac{\pi}{4}x - 5\right).$

Amplitude =	<input type="text"/>	Midline =	<input type="text"/>	Shift =	<input type="text"/>
Period =	<input type="text"/>	Frequency =	<input type="text"/>		

5. Identify the period and asymptotes for the functions below.

(a) $f(x) = 3 + 2 \sec(5x)$

Period =	<input type="text"/>	Asymptotes =	<input type="text"/>
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(b) $f(x) = 5 + 2 \tan(3(x + 1))$

Period =	<input type="text"/>	Asymptotes =	<input type="text"/>
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6. Simplify the following compositions.

(a) $\arcsin\left(\sin\left(\frac{6\pi}{5}\right)\right) =$

(c) $\arctan\left(\tan\left(\frac{6\pi}{5}\right)\right) =$

(b) $\arccos\left(\cos\left(\frac{6\pi}{5}\right)\right) =$

(d) $\arcsin\left(\sin\left(\frac{9\pi}{5}\right)\right) =$

Challenge Problems

1. Evaluate the compositions below.

(a) $\sin(\text{arcsec}(-5))$

(b) $\cos(\arctan\left(-\frac{1}{5}\right))$

(c) $\tan(\arccos\left(-\frac{1}{5}\right))$

2. $\arccos\left(\sin\left(\frac{\pi}{5}\right)\right) =$

3. $\arccos\left(\sin\left(-\frac{\pi}{5}\right)\right) =$

4. If $\arccos(\cos \theta) = \frac{\pi}{5}$ but θ is not in QI, then what is $\arcsin(\sin \theta)$?

5. For what values θ will $\arccos(\sec \theta)$ be defined?

6. For what values x will $\sec(\arccos x)$ NOT be defined?