

Worksheet Math 1316 -Plane Trigonometry

Unit 2: Section 4.1-4.2 Graphing Trig Functions

Things to Remember:

Unit Circle:

- NEED to have this memorized!
- Will help you graph _____ and _____ Functions
- Cosine Functions start on a _____ at _____
- Sin Functions start in _____ at _____

$y=C+\sin(x)$ moves _____

$y=A\sin(x)$ moves _____

$y=\sin(x+D)$ moves _____

$y=\sin(Bx)$ moves _____

Sin Functions Pattern:

Cos Functions Pattern:

Practice Problems:

Amplitude & Midline

$$y = -4\sin(x)$$

Draw Function:

a) What is the amplitude?

b) What is the midline?

$$y = \cos(x) + 5$$

Draw Function:

c) What is the amplitude?

d) What is the midline?

$$y = 2\sin(x) - 1$$

Draw Function:

e) What is the amplitude?

f) What is the midline?

Vertical Transformations

Describe the Transformations that occur in...

$$y = -3\cos(x) + 2$$

* Compare to $y = \cos(x)$ *

Write an equation for a sine function that includes

- Amplitude of 5
- Has a midline of $y = 1$

Describe the phase shift of

$$y = \cos(x - \pi/4)$$