

Periodic Functions 14-2: Day 2

GOAL: Graph periodic functions.

Apr 20-9:54 AM

Amplitude Vertical Shift
 $y = a \sin bx + c$

NEW!!!

Number of cycles between 0 and 2π
 $Period = \frac{2\pi}{|b|}$

$b = \frac{2\pi}{period}$

Apr 17-10:51 AM

For each of the equations, do the following:
 a. Find the minimum and maximum values of y.
 b. Indicate the y-intercept of the graph.
 c. find the number of cycles between 0 and 2π .
 d. Indicate how much the graph shifts (some graphs do not shift).
 e. Sketch the graph.
 f. Indicate the period.

1.) $y = 4 \sin(x)$

a) min = -4
 max = 4
 b) yint (0,0)
 c) 1
 d) no shift
 e) Sketch graph
 f) 2π

2.) $y = 3 \cos(2x)$

a) min = -3
 max = 3
 b) yint (0,3)
 c) 2
 d) no shift
 e) $\frac{2\pi}{2} = \pi$

Apr 29-11:02 AM

3. $y = \cos(2x) + 1$

a) min = 0
 max = 2
 b) yint (0,2)
 c) 2
 d) up 1
 e) $\frac{2\pi}{2} = \pi$

4. $y = 4 \sin(3x) - 2$

a) min = -6
 max = 2
 b) yint (0,-2)
 c) 3
 d) down 2
 e) $\frac{2\pi}{3}$

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5. $y = \sin x - 1$

6. $y = 2 \cos 2x + 2$

Apr 22-12:21 PM

Assignment:
 Graphing Sine and Cosine Worksheet

Apr 23-9:00 AM