Class Discussion

Unit 4 Topic 5 Part 1 Graph of a sine / cosine function

For a function of $f(x) = a\sin(bx - c) + d$

Definition of

1. Neutral Line $y = \frac{\min + \max}{2}$ (or the vertical shift y = d)

2. Amplitudes $a = \frac{\max - \min}{2}$

3. Period $P = \frac{2\pi}{b}$

How to graph a periodic function?

Step 1: Find out the ampt

Step 2: the period P

Setp 3: Construct an extended x/y table for one period span.

Step 4: Graph

Ex1: Graph $f(x) = 2\sin 3x$