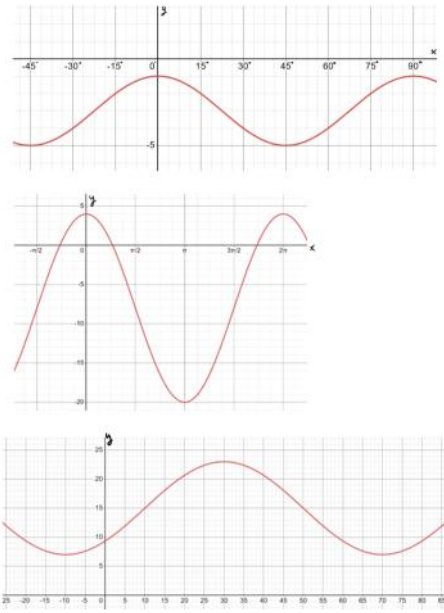
C_13 Key and Making Trig Equations

Wednesday, October 19, 2022 2:52 PM

c_13 Making sinusoidal equations



1) Write a step-by-step process for how to figure out

-vertical displacement

-amplitude

-period

2) Create an equation for each graph

3) Check each answer, by putting the equation into a graphing calculator and comparing the graph it makes to the one on the paper.

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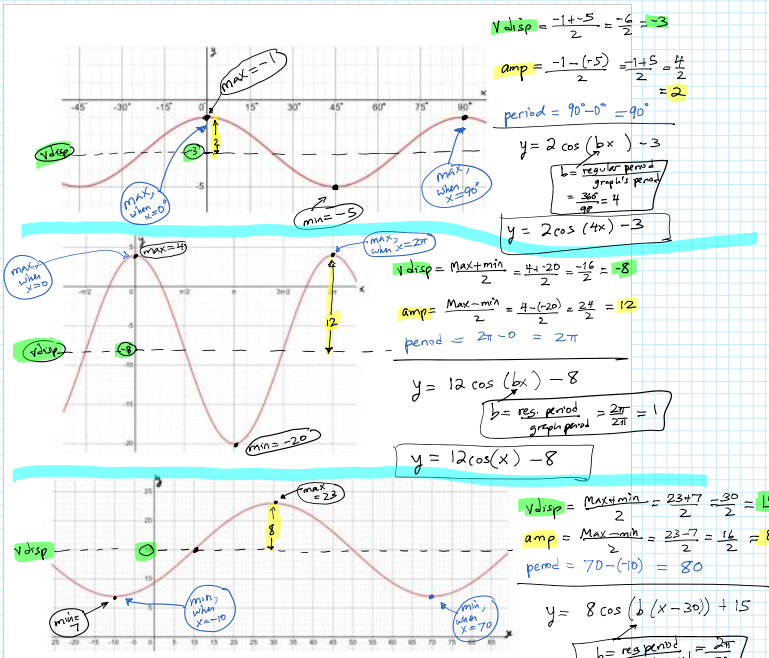

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To find vertical displacement

1) **Find the maximum y-value**
2) **Find the minimum y-value**
3) **Average them: (max + min)/2 = vertical displacement**

To find amplitude

- **Subtract: (max y-value) - (vertical displacement y-value) = amplitude**

OR

1) **Subtract: (max y-value) - (min y-value)**
2) **Divide that answer by 2, to get the amplitude**

To find period

1) **Find the x-value where the graph has a maximum**
2) **Find the next x-value where the graph has a maximum**
3) **Subtract them, to get the period**

OR

1) **Find the x-value where the graph has a minimum**
2) **Find the next x-value where the graph has a minimum**
3) **Subtract them, to get the period**