CCMII->Amplitude and Midline (equation to graph)

1. Amplitude
2. A graph in the form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has an amplitude of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The amplitude of a standard \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_ graph is \_\_\_\_\_\_.
4. The amplitude of a sine or cosine graph can be found from an equation using the following formula:
5. Find the amplitude for each of the following:
6. y = 3sinx
7. y = -4cos5x
8. y = (1/3)sinx +5

The amplitude can also be found from a graph by using the following formula:

1. Midline
2. The midline is the line that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The midline is halfway between the \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_
4. When there is no vertical shift, the midline is always \_\_\_\_\_\_\_\_\_\_\_\_.
5. The midline can be found from a graph by using the following formula:

Find the amplitude and midline for each of the following graphs:

1.  2.



1. 4.

CCMII

Unit 5a 🡪 Lesson 4 🡪 Amplitude and Midline (equation to graph) TEACHER KEY

1. Amplitude
2. A graph in the form y = asinx or y = acosx has an amplitude of lal.
3. The amplitude of a standard sine or cosine graph is 1.
4. The amplitude of a sine or cosine graph can be found using the following formula:

Amplitude = $ a$

1. Find the amplitude for each of the following:
2. y = 3sinx 3
3. y = -4cos5x 4
4. y = (1/3)sinx +5 1/3

The amplitude can be found by using the following formula:

Amplitude = $ \frac{max-min}{2}$

1. Midline
2. The midline is the line that “cuts the graph in half.”
3. The midline is halfway between the max and min
4. When there is no vertical shift, the midline is always y = 0.
5. The midline can be found using the following formula:

Midline is y = $\frac{max+min}{2}$

Find the amplitude and midline for each of the following graphs:

1.  a= 7 2. a= ¼

m @ y=0 m @ y = 5



1. a=1/2 4. a=1/2

m @ y=4 m @ y=0