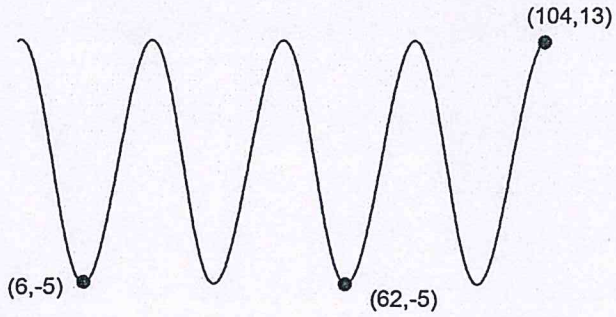
Bellwork Alg 2 Thursday, March 21, 2019

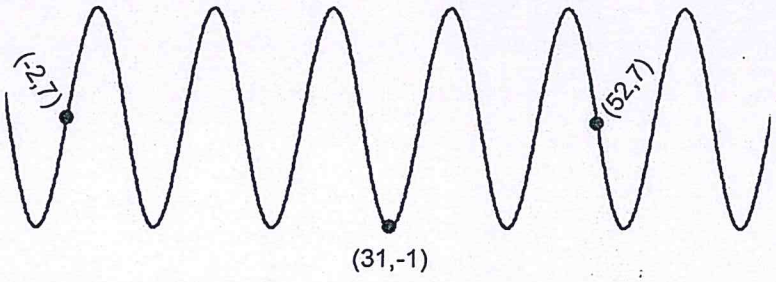
For each of the periodic functions below find the Period, Amplitude, and Equation of the Midline.

1.



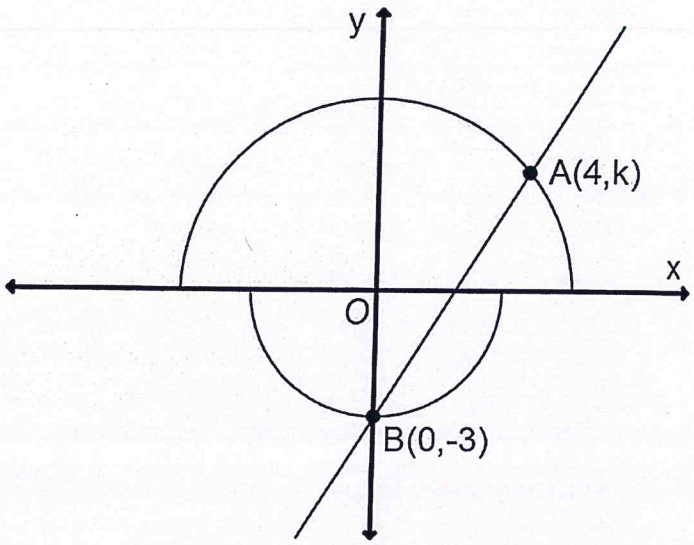
Amplitude =
Eq of Midline:
Period =

2.



Amplitude =
Eq of Midline:
Period =

3. In the xy-plane, Point O is the center of both semicircles. The larger circle passes through point A and the point (5,0), and the smaller circle passes through point B. What is the slope of the line passing through points A and B?

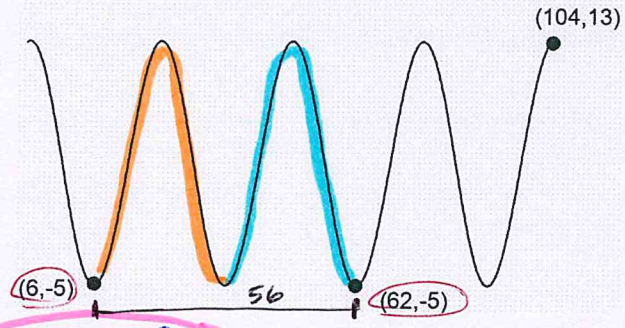


A) $\frac{5}{4}$ B) $\frac{4}{3}$ C) $\frac{3}{2}$ D) $\frac{7}{4}$

Bellwork Alg 2 Thursday, March 21, 2019 ANSWERS

For each of the periodic functions below find the Period, Amplitude, and Equation of the Midline.

1.



Amplitude = 9
Eq of Midline: $y = 4$
Period = 28

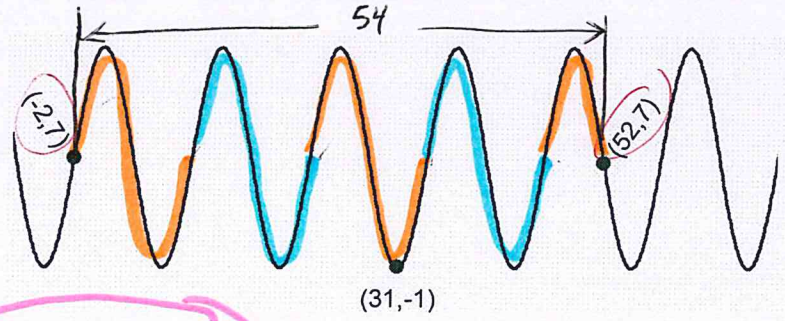
Amplitude: $\frac{13 - -5}{2} = \frac{18}{2} = 9$

MIDLINE: $\frac{13 + -5}{2} = \frac{8}{2}$

$y = 4$

period: $\frac{56 \text{ UNITS}}{2 \text{ cycles}} = 28$

2.



Amplitude = 8
Eq of Midline: $y = 7$
Period = 12

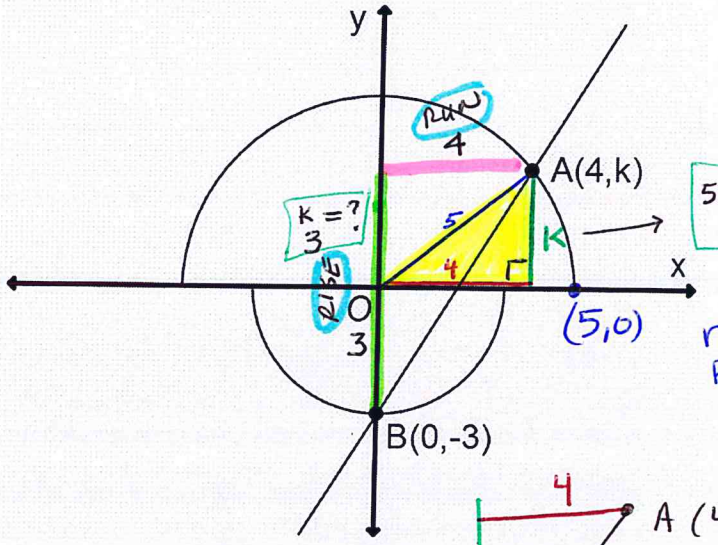
Amplitude: $7 - -1 = 8$

Midline: $y = 7$

period: $\frac{54 \text{ UNITS}}{4\frac{1}{2} \text{ cycles}} = \frac{54}{\frac{9}{2}}$

$= 54 \cdot \frac{2}{9} = 12$

3. In the xy-plane, Point O is the center of both semicircles. The larger circle passes through point A and the point (5,0), and the smaller circle passes through point B. What is the slope of the line passing through points A and B?

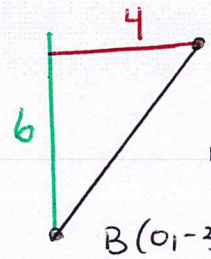


$5^2 = 4^2 + k^2$

$k = 3$

radius of Bigger circle = 5

A) $\frac{5}{4}$ B) $\frac{4}{3}$ C) $\frac{3}{2}$ D) $\frac{7}{4}$



$m = 6/4 = 3/2$