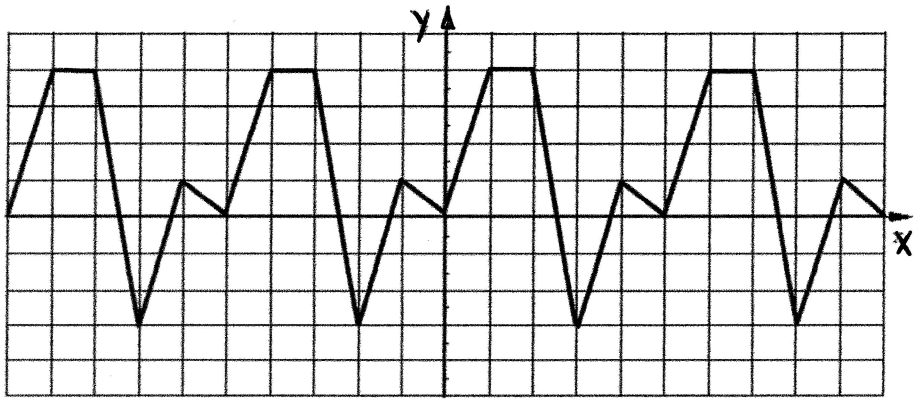
Bellwork Alg 2 Friday, April 24, 2020

1. Find the Period, Equation of the Midline, and Amplitude of this Periodic Function.



Period: Amplitude: Eq. of Midline:

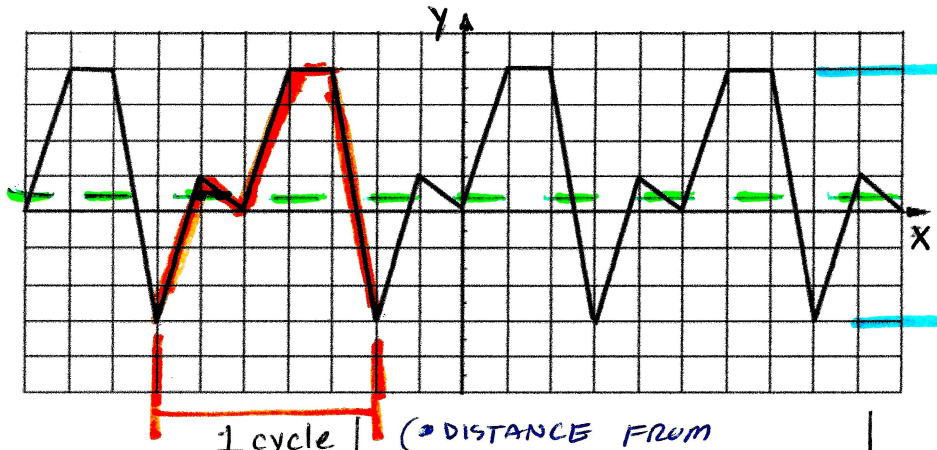
2. $\angle X$ is the right angle in $\triangle XYZ$. If $\tan Y = \frac{28}{45}$ find each of the follwing as ratios.

a) $\sin Y =$

b) $\cos Y =$

Bellwork Alg 2 Friday, April 24, 2020 Answers

1. Find the Period, Equation of the Midline, and Amplitude of this Periodic Function.



1 cycle = 5 units

Period: = width of 1 cycle

Period = 5

• DISTANCE FROM MIDLINE TO EITHER THE MAX or MIN or 1/2 TOTAL HEIGHT

Amplitude:

$\frac{\text{max} - \text{min}}{2} = \frac{4-(-3)}{2}$

Amp = $\frac{7}{2}$ or 3.5

Horiz line through the middle of graph. Avg of max & min

Eq. of Midline:

$y = \frac{\text{max} + \text{min}}{2} = \frac{4+(-3)}{2}$

$y = 1/2$ or 0.5

2. $\angle X$ is the right angle in $\triangle XYZ$. If $\tan Y = \frac{28}{45}$ find each of the follwing as ratios.

a) $\sin Y = \frac{\text{opp}}{\text{hyp}} = \frac{28}{53}$

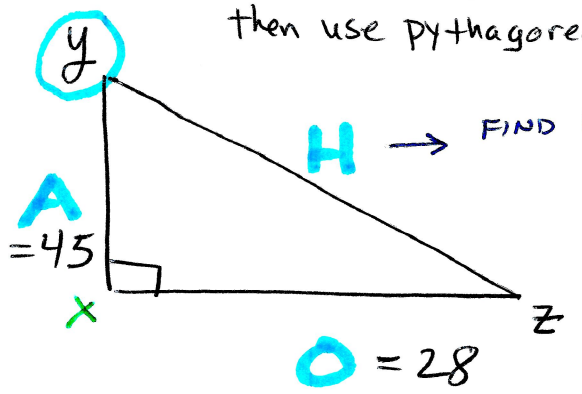
b) $\cos Y = \frac{\text{adj}}{\text{hyp}} = \frac{45}{53}$

* Draw $\triangle XYZ$ AND LABEL IT WITH X, Y, Z, 28, & 45 then use pythagorean theorem to find 3rd side.

IF $\tan Y = \frac{28}{45}$

28 → opp leg O

45 → adj leg A



H → FIND HYPOT : $\sqrt{H^2} = \sqrt{45^2 + 28^2}$

H = 53

SOHCAHTOA