

Are there any Homework Questions you would like to see on the board?

pp. 339-343 # 2 – 4, 6, 9, 12

Today's Learning Goal(s):

By the end of the class, I will be able to:

- a) relate details of sinusoidal phenomena to their graphs.

BE READY for the UNIT 5 SUMMATIVE Tomorrow!

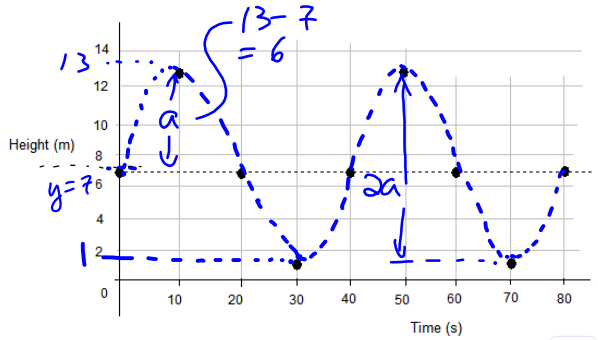
MCF 3MI

6.4 Comparing Sinusoidal Functions

Date: Apr. 30/18

Ex. 1: Complete the table.

Ferris Wheel A



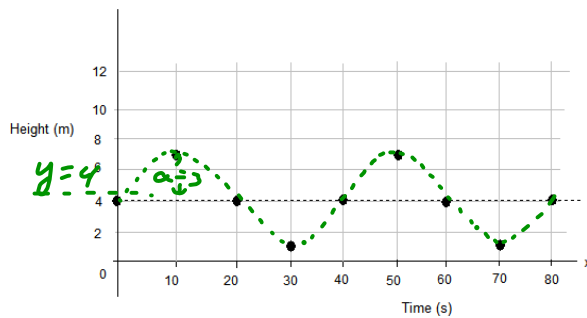
Period = 40 s

Equation of the Axis: $y = 7$

Amplitude = 6

Circumference of the Ferris Wheel = $2\pi r$
 (on πd) = $2\pi(6)$
 ≈ 37.699
 $\approx 37.70 \text{ m}$

Ferris Wheel B



Period = 40 s

Equation of the Axis: $y = 4$

Amplitude = 3

Circumference of the Ferris Wheel = $2\pi r$
 $= 2\pi(3)$
 ≈ 18.849
 $\approx 18.85 \text{ m}$

Ex. 2: How do we interpret the following information about the Ferris wheel?

a) period for Ferris Wheel A, Ferris Wheel B
 the time for 1 complete rotation

b) equation of the axis $\frac{\text{max} + \text{min}}{2}$
 height of the center of the wheel above the ground.

c) amplitude for each Ferris Wheel

$a = \text{max} - \text{eq'n of the axis}$ OR $\frac{\text{max} - \text{min}}{2}$

Ex. 3: Calculate the speed at which each wheel is travelling.

$$\text{Speed}_A = \frac{C_A}{\text{Period}_A}$$

$$= \frac{37.70}{40}$$

$$\approx 0.9425$$

$$\approx 0.94 \text{ m/s}$$

$$\text{Speed}_B = \frac{C_B}{\text{Period}_B}$$

$$= \frac{18.85}{40}$$

$$\approx 0.47125$$

$$\approx 0.47 \text{ m/s}$$

$$s = \frac{d}{t} = \frac{\text{circumference}}{\text{period}}$$

0.47 m/s

 0.49 m/s

**BE READY FOR TOMORROW'S
UNIT 5 TRIGONOMETRY SUMMATIVE**

Today's Homework: (*Due Wednesday May 2*)

pp. 348-350 # 1 – 3, 7 AND

READ pp. 355-356 AND

pp. 357-358 # 1 – 4, 6 – 8