


# REVIEW DAY 1



- Go over Values/Theta Quiz
- Homework Questions
- Review Topics
- Review Assignment
- Snake Review

Aug 29-6:38 AM

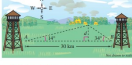
**GO COUGARS!** 

### Homework Questions

Workbook p 99 Answer Key


- 3290.53 ft.
- height of deck 52.35 ft.
- car at furthest distance 373.21 ft.  
car at closer distance 153.99 ft.  
distance traveled 219.22 ft.
- distance from port to ship 84.85 knots  
bearing 140 degrees
- distance from port to ship 176.88 knots  
bearing 128.43 degrees
- 3185.92 ft.
- 3136.38 ft.
- 637.85 ft.

36. **Location of a Ship** Two lighthouses are 30 kilometers apart, where lighthouse A is due west of lighthouse B. A ship is spotted from the lighthouses with bearings from A and B of  $81^\circ$  and  $64^\circ$ , respectively. How far is the ship from the lighthouses?




37. **Navigate** A ship is 45 miles east and 30 miles south of port. The captain wants to sail directly to port. What bearing should be taken?

38. **Relative** An observer on a lighthouse 150 feet above the level of the sea sees a ship directly offshore. The angle of depression to the top of the ship is  $42^\circ$ . How far is the ship from the lighthouse?




41. **Altitude** A plane is observed approaching your house and you estimate its speed is 370 miles per hour. The angle of elevation to the plane is  $17^\circ$  as the plane passes over your house. Approximate the altitude of the plane.

43. **Angle of Elevation** The top of a tree is observed from a point 100 feet from the base of the tree. The angle of elevation to the top of the tree is  $32^\circ$ . How far is the top of the tree from the base of the tree?



44. Find the angle of elevation to the top of the screen from both the closest eye and the farthest eye. (The blue dot from the base of the wall should give you the angle of elevation to look up to the top of the screen at an angle of  $32^\circ$ .)



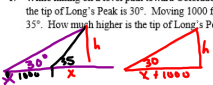
Feb 2-9:51 PM

# 4 Review 1.notebook

Page 83

Trigonometry

- While hiking on a level path toward Colorado's front range, Otis Evans determines that the angle of elevation to the tip of Long's Peak is  $30^\circ$ . Moving 1000 ft closer to the mountain, Otis determines the angle of elevation to be  $35^\circ$ . How much higher is the tip of Long's Peak than Otis's elevation?
 




$$\tan 30 = \frac{h}{1000+x}$$

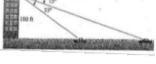
$$\tan 35 = \frac{h}{x}$$

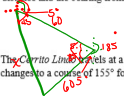
$$h = x \tan 35$$

$$h = x \tan 30$$
- The angle of elevation from an observer to the bottom edge of the Delaware river drawbridge observation deck located 200 ft from the observer is  $30^\circ$ . The angle of elevation from the observer to the tip of the observation deck is  $40^\circ$ . What is the height of the observation deck?
 

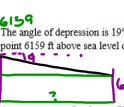


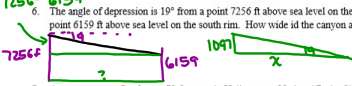
$$x_1 - x_2 = h$$
- From the top of a 100 ft building a man observes a car moving toward him. If the angle of depression of the car changes from  $15^\circ$  of  $33^\circ$  during the period of observation, how far does the car travel?
 

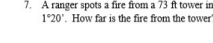

- The Coast Guard cutter *Angletica* travels at 30 knots from its home port of Corpus Christi on a course of  $95^\circ$  for 2 hours and then changes to a course of  $185^\circ$  for 2 hours. Find the distance and the bearing from the Corpus Christi port to the boat.
 

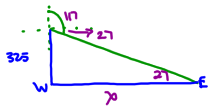


Bearing =  $95 + 45 = 140$
- The *Covito Lindo* travels at a speed of 40 knots from Fort Lauderdale on a course of  $65^\circ$  for 2 hours and then changes to a course of  $155^\circ$  for 4 hours. Determine the distance and the bearing from Fort Lauderdale to the boat.
 


- The angle of depression is  $19^\circ$  from a point 7256 ft above sea level on the north rim of the Grand Canyon level to a point 6159 ft above sea level on the south rim. How wide is the canyon at that point?
 


- A ranger spots a fire from a 73 ft tower in Yellowstone National Park. She measures the angle of depression to be  $1^\circ 20'$ . How far is the fire from the tower?
 


- The bearing of the line of sight to the east end of the Royal Gorge footbridge from a point 325 ft due north of the west end of the foot bridge across the Royal Gorge is  $117^\circ$ . What is the length of the bridge?
 




Jan 31-11:36 AM

## Chapter 4 Review Topics

- \* Complementary and Supplementary Angles (in deg, exact radians, approx radians)
- \* Convert Degrees to Radians
- \* Convert Radians to Degrees
- \* Degrees, Minutes, Seconds in Calc.
- \* Positive and Negative Coterminal Angles (in deg, exact radians, approx radians)
- \* Arc Length Problems (AL = radius x radians)
- \* What quadrant am I in? (in deg, exact radians, approx radians)
- \* Trig values - non-calc values that you have memorized (deg and radians) including quadrant angles
  - use calc correctly to find uncommon values (deg and radians)
- \* Find  $\Theta$  - using common trig values (deg and radians) 2 answers!!
  - use approx values (deg and radians) 2 answers!!!!
- \* Find reference angles (in deg, exact radians, approx radians)
- \* Name six trig function values given: a point (draw a triangle with the x-axis) one trig value and other quadrant information
 

(2, -3)


- \* ~~Co-Function Rules~~
- \* Solve a triangle (given sides and/or angles, find the remaining sides/angles)
- \* Word Problems - AS/LS
  - Right triangle problems

$$AS = r\omega \cdot 2\pi$$

$$LS = AS \cdot \text{radius}$$

Jan 30-7:05 AM

# HOMework



Review Assignment

p 344 3-60, 65-72, 75-84, 87-106, 177-179

WB pgs 97 & 100

Task cards (link on website)

WB p 104 -Due Monday

Feb 2-9:51 PM

Jan 31-9:40 AM