TELMOOC. Technology Enabled Learning week-4 Assignment.

TEL Activity Plan

Name: *Belal Uddin*
Grade/Course: *Grade 9, Mathematics.*
Length of Activity: *50 minutes.*

Lesson Summary:
Students need to learn the distance and height determination techniques of a remote object. It is important to increase the use of trigonometric ratios in the present age. The height of mountains, mountains, towers, plant height, and river width are not easily measured, In that case can be determined with the help of trigonometry.

Lesson Objective:
At the end of this lesson, students will be able to solve geometrical, arithmetic, vertical, progressive angle and degradation angle and solve arithmetic problems with distance and height with trigonometry.

Resources/Technology – Teacher:

- Computer/laptop
- Projector
- Ruler
- White board
- White Board Markers

Online Resources:

- https://en.wikibooks.org/wiki/Trigonometry/Angles_of_Elevation_and_Depression
- http://www.calctool.org/CALC/math/trigonometry/height
- https://www.vedantu.com/rs-aggarwal-solutions/class-10-chapter-14-height-and-distances
- http://www.quickanddirtytips.com/education/math/what-are-sine-cosine-and-tangent
- https://www.youtube.com/watch?v=BGXgcvGPRLI

Resources/Technology – Students:

- Computers/Laptop setting
- Worksheet/learning materials
- Calculators

Online Resources:

- http://www.algebraden.com/angle-of-elevation.htm
- https://www.easycalculation.com/trigonometry/angle-elevation-calculator.php
- http://www.stonekick.com/blog/using-basic-trigonometry-to-measure-distance.html
- https://math.stackexchange.com/questions/301872/calculate-the-height-of-a-distant-object-using-estimated-angles-from-two-differe
- https://www.youtube.com/watch?v=sN91vKCEHX4

Intended Curriculum Learning Outcomes:

- Students will be able to explain geo-line, upper-line, vertical, progress angle and deterioration angle.
- With the help of trigonometry, Student can solve the mathematical problems of distance and height.
- With the help of trigonometry, Student can measure the distance and height in the hand.

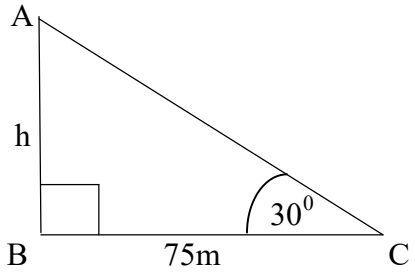
Instructional Activities:

- The teacher explains the geo-line, the upper line, the vertical, the improvement angle and the downward angle. (10 minutes)
- Teacher will show the students how to calculate the distance and height of the trigonometry on the white board and by PowerPoint presentation. (25 minutes)
- Using a triangular ratios, the students will be given time to complete a class activity through a project with group discussions. (15 minutes)

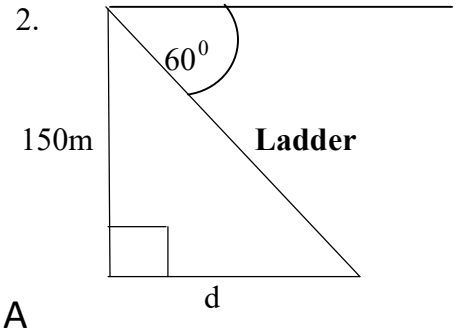
Learner Assessment:

Students will solve correctly related problems such as:
Find the value of side indicated by letters using trigonometry.

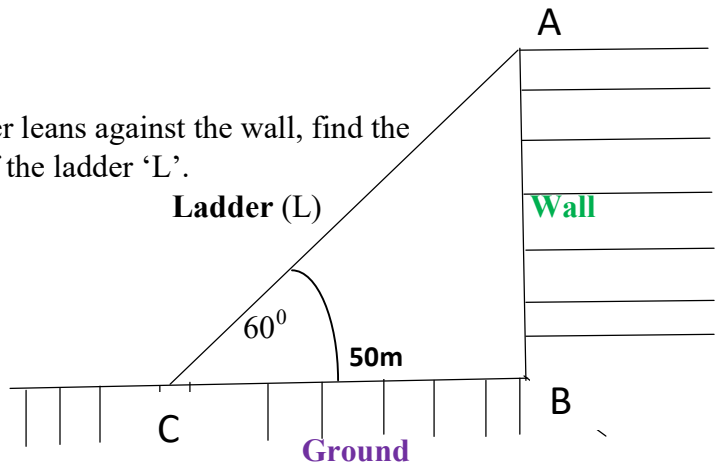
1.



2.



3. The ladder leans against the wall, find the length of the ladder 'L'.



Model Answers:

1. h = 43.301m. 2. d = 86.605m. 3. L = 100m.