

Academy of International Studies

IMP II

Orchard Hideout

1. Read and work on the Activity “Orchard Hideout.”

Note: It is okay to make a model with smaller radius!

Make sure to experiment with trees and orchard of different sizes.

2. Question: It is possible to see out from the center of the orchard?

3. Using grid paper sketch the situation schematically.

4. What is a true Orchard Hideout?

5. Define Line of Sight

6. How would you use the terms circle, center and radius referring to this situation? Give example. Note: The plural of radius is *radii*!

7. Which are some of the assumptions that you will need to make to be able to solve this problem?

1.

2.

3.

8. State the two main questions of this unit?

9. After reading the reference pages answer the following questions.

10. State the “angle sum property” for triangles.

11. When two polygons are considered similar?

12. State the two basic principles for providing similarity of triangles.

13. What is congruence?

14. When are two polygons congruent?

15. State the two basic principles for providing congruence for ALL polygons and for triangles.

16. Write everything you know about Right Triangle.

17. How can you identify the hypotenuse in a right triangle?

18. Name and define three trigonometric functions. Draw a triangle and define each ratio.

19. How can you find the inverse function of each trigonometric ratio?