

Teacher Guide

Concepts	Materials	California Standards
<ul style="list-style-type: none"> • Linear equations • Slope • Parallel • Perpendicular 	<ul style="list-style-type: none"> • TI-83+ or TI-84+ • TI-Navigator • Pyramid Activity 	<ul style="list-style-type: none"> • Algebra 1:5.0 • Algebra 1:6.0 • Algebra 1:7.0 • Algebra 1:8.0

Directions:

In this activity, students will determine if two sides of a pyramid are perpendicular.

1. Students will contribute 1 or 2 points that lie on the left side of the pyramid using Navigator's Activity Center.
2. Teacher will save and send L1 and L2 to the students so they can find the slope of the line.
3. Students will find the slope of the line and find the equation of the line in slope intercept form using paper and pencil.
4. Students will send their equation to the teacher.
5. Teacher will guide a discussion about parallel and perpendicular lines.
6. Student will find and send their equation of a perpendicular line to verify if the two side of the pyramid are perpendicular.

Equations:

Left: $y = 1.05x + 7.3$

Right: $y = -0.85x + 1.8$

Steps:

1. Start Navigator program.
2. Begin class so students can log in.
3. Begin Activity Center.
4. Load *Pyramid.act* file.
5. Discuss problem with students.
6. Start Activity so students can plot points.
7. Stop Activity and delete any misplaced points.
8. Save points in L1 and L2 to computer.
9. Return to Navigator and force send L1 and L2 to class.
10. Student will find slope and equation on worksheet.
11. Return to Activity Center and modify contribution to equations.
12. Click on Graph tab.
13. Start Activity so students can send their equations.
14. Stop Activity and have a discussion about parallel lines.
15. Click on Graph-Equation or Equation tab and have a discussion about the similarities and differences of their equations.
16. Reconfigure contributions by check off the first 2 boxes under Main Settings.
17. Clear activity data and click on Graph tab.
18. Start Activity so students can resubmit their equations.
19. Stop Activity so students can find perpendicular slope and equation on the worksheet.
20. Start Activity so students can submit their perpendicular equations.
21. Stop Activity and have a discussion about perpendicular lines.
22. Students are to complete the question section of worksheet.