

Building the 72 point Geoboard

Supplies needed:

Plywood can be purchased from Lowe's or Home Depot in 8 ft by 4 ft sheets. Since the geoboards are 16" by 16", a sheet will yield 18 boards perfectly. Even better Lowe's and Home Depot will cut the plywood for you!

Panel Board Nails (or something like them) - around 1 inch in length. By rule of thumb, stock up on 100 nails for every board.

360 degree protractor. apluscompass.com. These protractors run about \$30. I only own one of these protractors and instead use it for my students to create their own 360 degree protractors using transparency sheets, wet erase markers, and the lamination machine.

Hammers

Sand Paper

Rubber bands or String

Safety Goggles



Building the Geoboard:

Day 1: Students sand the boards, front, back and edges. Probably best to do this in a well ventilated area or even outside. These boards generate a lot of sawdust, so if they sand inside, make sure you have access to a broom and dustpan.

Day 2: Students will draw a circle using the 360 degree protractor and mark the center of the board. At this point, utilize the opportunity for the students to figure out how far apart to place the nails if there will be a total of 72 nails driven into the board on the circumference of the circle. After they figure out that the nails should be 5 degrees apart ($360/72$), have them mark the five degree increments on their board. Students will also number the nails 1-72.

Day 3: Students will drive the nails into the board. At least 1/2 inch of the nail should remain above the surface of the board. "Enough to hold a tense rubber band without sending the nail flying". They will also need to drive a nail into the center.

