The first step in placing large concrete slabs, patios, driveways, etc., is to stake out the area using the 3-4-5 triangular method. This method ensures square, true corners on square and rectangular surfaces (any multiple of this ratio, such as 6-8-10 or 9-12-15, will give the same result). Always use a line level to ensure all lines strung are level. After taking out the area, double-check for squareness by measuring the diagonals between opposite corners. They should be equal.

When deeper trenches must be dug for wall and foundation footers, it is best to lay out batter boards. Batter boards are set back from the actual work area so they are not disturbed by digging and construction. They also serve as a record of all important locations, such as trench and footer dimensions and the location of the outer edge of the finished wall. To lay out batter boards:

**Step by Step**

1. Lay out the perimeter of the project by accurately driving stakes at the corners. About 5’ (1.5m) outside these stakes, drive 1” x 4” (25mm x 100mm) stakes and construct batter boards as shown. Because the trench must be at least 3’ wide to allow room to work, batter boards should be 4’ to 5’ (1.2m to 1.5m) long.

2. Transfer the building lines to the batterboards by dangling a plumb bob over the outer edge of each corner stake while stretching a length of line between batter boards. This is best done as a two-person operation.
3. With the outside corner dimensions marked out on the batter boards, measure over the required distances to record the position of footer and trench edges. Cut small kerfs in the batter boards at these positions so that lines can be accurately strung and restrung whenever needed.

4. After digging the trench, a plumb bob can be used to transfer dimensions for footer forms and final wall positions.