## Build a Tree Bench

## I ntroduction

## Encircle a tree with a hexagon

To build your own shady retreat, first choose a tree where you would like to sit in a quiet, secluded area, maybe overlooking a favorite part of the yard. The tree should not be tilted too much or have many visible roots. The method of construction is to build the bench in two sections, then locate the postholes by holding the bench temporarily in place.

## Before you start

Purchase or rent a power miter box or radial saw-something that can make precise 30-degree cuts. Measure your tree's diameter 18 inches from the ground to determine the inside dimension of the bench. Use pressure-treated lumber for the posts and supports, and cedar, redwood, or pressure-treated lumber for the seat pieces. Draft at least one helper for the final assembly.

## Materials

- $4 \times 4$ posts
- $2 \times 4 \mathrm{~s}$ for seats and supports
- 3-inch galvanized deck screws
- 5-inch hex bolts, nuts, and washers
- Gravel



## I nstructions

1. Assemble supports. Put together six bench supports, using $2 \times 4$ pieces and screws. The faces of these will show, so make sure the ends of the three pieces are evenly cut and flush.
2. Cut the inside pieces. Cut six pieces of $2 \times 4$ to be used as the seat pieces closest to the tree. The measurement of the longest side will equal the diameter of your tree. (If you have a fast-growing tree, make them 2 inches longer.) With two helpers, hold up all six pieces around the tree to make sure they are the right size.

3. Start the layout. On a large, flat surface, lay out the first bench section (half the circle), using four seat supports and three of the bench pieces that you have just cut. Adjust them so that all angles are equal. Do not assemble yet.

4. Cut and install boards. Trim the rest of the boards, using the already-cut boards as guides. After positioning them tightly, install them with 3 -inch galvanized deck screws.

5. Build the second section. This will only have two bench supports, so screw pieces of $2 \times 4$ onto the bottom of each end for temporary support.

6. Set the sections. Set the two sections in place by resting them on chairs. When the whole assembly is positioned correctly, hang a plumb line from the center of each
bench support and dig up a bit of turf to mark each posthole. Shift the whole assembly to avoid large, exposed roots.

7. Dig the postholes. You will probably run into underground roots. Do not cut large roots, or you may kill the tree. As a general rule, any root less than 1 inch in diameter can be cut. Some postholes-no more than three-can be left shallow. Shorten the posts accordingly. Be sure the holes are wide enough.

8. Install the posts. Cut six $4 \times 4$ posts to the correct length—the depth of the hole plus 16 inches. Cut a tenon on one end so that the post will fit into the bench support. With your bench sections upside down, install each post, fastening it securely with a 5 -inch hex bolt, a washer, and a nut.

9. Set the bench. Set the section with four bench supports in the postholes first. Then lower the other section into place. Make adjustments until the bench is level all around. Install the final screws, set the posts into the holes, and tamp in place.
