



Corners: the 3:4:5 Rule

You will learn how to locate a point at a right angle from an existing line using the 3:4:5 principle.

The 3:4:5 principle states that if two sides of a right-angled triangle measure 3 and 4 units, then the third side will always measure 5 units.

Two sides of a right-angled triangle measure 3 and 4 units, third side measures 5 units.

Locate the spot where the two walls will meet and mark point A. Hammer the first nail into this point. Now, place the measuring tape along the first wall that is to be built and locate the spot 4 feet away from point A. Mark this as Point B. Hammer the second nail into point B.

Tie one end of a string to Point A. Make sure that the knot is secured tightly. Pull the rest of the string towards Point B and tie a second knot so that the two points are now connected to each other. Ensure that the string is not loose.

Now, hold the roll of measuring tape at Point B and pull out the tape until the 8 feet mark is at the nail. Hold the string along the exposed section of the measuring tape and mark the point corresponding with where the tape ends. You now have an 8 feet mark on the string. With the Measuring Tape and String still held together, mark the 3 feet point from the 8 feet mark. This point will also measure 5 feet from Point B. Tie the loose end of the string to point A exactly where the 8 feet mark has been made. Make sure that you tie the string at the exact spot where it has been marked.

Now, pull out the loose section of the string by holding the point that marks 3 feet from point A and 5 feet from point B. Hold it down on the ground at the spot where it forms a triangle with taut sides. Mark this spot as Point C. Hammer a nail into this point. Loop the string around the nail so that you now have a triangle ABC, whose corners are tied together with a string. The angle can be rechecked using a Mason's Square. If these steps have been followed accurately, the angle BAC will measure 90 degrees.

You have now learned to find a 90 Degree Angle using the 3-4-5 method.

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