

Distance Converter

The Distance Converter is a circular sliderule for converting distances between feet, meters, yards, and your own stride. The Outer dial is marked with numbers ranging from 10 to 95. The smaller marks in between help you to gauge values in between. Between the values of 10 and 20, the smaller marks each represent 0.2. Between 20 and 40, the intermediate marks each mean 0.5. Between 40 and 10 again, the little marks are each 1. For example, 82 is two inner marks above 80, 29.5 is three marks past 29, 16.8 is 4 marks past 16.

The Inner dial has pre-printed marks indicating Feet, Meters and Yards. You'll be calibrating your stride and adding a mark that represents the length of your stride. Your stride mark will fall somewhere between the Feet indicator and the Yards indicator.

Assemble the Converter by cutting out both dials. Trim the inner dial by cutting between the two circles. Use an old service pin and carefully punch it through both of the center crosses. Put the service pin clasp on back to hold them together. The inner dial should rotate inside of the larger dial, but rotate gently so that the inner dial stays centered with the outer dial.

Calibrate the Converter to match your stride. To do this, accurately measure a distance (100 feet works well) and then walk that distance with your normal walking stride. Count the number of strides it takes to cover the 100 feet. Do this several times until you consistently get the same number of strides within one or two. Make sure you walk with a normal stride!

Line up the Feet indicator on the inner dial to the 10 mark on the outer dial. The 10 can be used for 10, 100, 1000, 10000. In our case, we will call it the 100 mark since you walked 100 feet (that's why you put the Feet indicator there). Now place a mark near the number representing how many strides you took. For example, if you take 42 strides to walk 100 ft, place a mark at 42 on the dial while the Feet indicator is pointing to 10. You're done!

Use the Converter to determine how many strides it will take to equal a distance. For instance, if you need to measure out a distance of 250 feet, place the Feet indicator at 25 (which can mean 25, 250, 2500 etc...). If your stride was 42 strides per 100 ft, then the Stride marker you put on the inner dial should now be pointing at 3rd mark after the 10. Since the next labeled mark is 11, each of the smaller marks each represent 0.2; adding three of those to 10 gives: $10 + .2 + .2 + .2 = 10.6$. Now, what the heck does that mean?

The answer is that since the Feet indicator is at 25 and you really want that to mean 250 (10X25), you simply multiply the stride indicator by 10 as well. So the 10.6 becomes $10 \times 10.6 = 106$. So, 250 feet equals 106 of your normal strides! Cool! Walk normally and count out 106 strides, and you'll traveled pretty close to 250 feet.

The Converter can also measure distance in yards and meters too! For example, You need to measure out one half of a kilometer. That's 500 meters, so place the Meter indicator at 50. Look at where your stride mark is. Using the 42 steps per 100 feet above, the mark should be pointing at 70. Since $500 = 10 \times 50$, then our answer is $10 \times 70 = 700$ strides.

But wait, there's more! What if you need to measure a distance in strides and convert it back to yards? No problemo!

Lets say you measured your back yard to be 35 strides long. Put your Stride mark on the 35 and then read the number next to the Yard indicator (27.5 using our example). That means your yard is 27.5 yards across! Need that in feet? Look at the feet indicator and you'll see this mark at about 83 feet! Simple!

But wait, there's even more! Your Converter can easily convert between Feet and Meters or Meters and Yards, or even between Yards and Feet. It's magic and it's free! Say you need to convert 55 Meters to feet. Put the Meter indicator on 55 and read off the number next to the Feet (18)! How cool is that!

