# How to Measure Your Deck

You are going to need a rough estimate of the area of your deck and length of your handrails. If you are doing the job itself, you will need this for calculating how much stain to use. If you are outsourcing to a contractor, you will want to estimate your budget and he will want to know the size of the deck to give you a price. The following is the method we use. It's quick and simple. You can measure your deck in less than 20 minutes, maybe even as little as 5 minutes.

Pace it out

You could get a tape measure but that will take quite a while and will give you unnecessary accuracy. I suggest you pace out the deck. You might even get your kids to do this for some fun and the test their addition and algebra!

In my experience, each pace is about 2.7 feet. Maybe 2.5 feet if your legs are a little shorter than average, see below.

1 PACE.
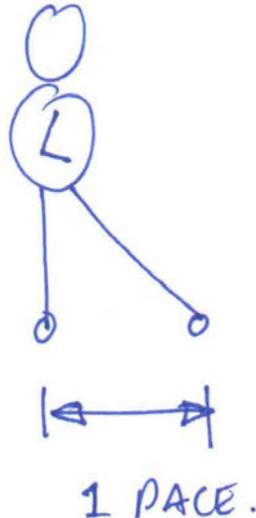
If you want to know your pace more accurately, then use a tape measure to mark out 16 ft on your deck. Then, using an even pace, count how many paces you get into that 16 feet, see diagram below. Remember to try to pace consistently as you would over your whole deck. Let's say you find you have 6 paces, then each pace would be close to 2.7 feet. I would keep things simple and use either full paces

or half paces when measuring smaller areas; you don't need better accuracy. Long skinny walkways, however, are often 1.5 paces wide and you would get big errors if you rounded this down to 1 pace or rounded up to 2 paces. But there is little point estimating a distance as 1.33 paces.
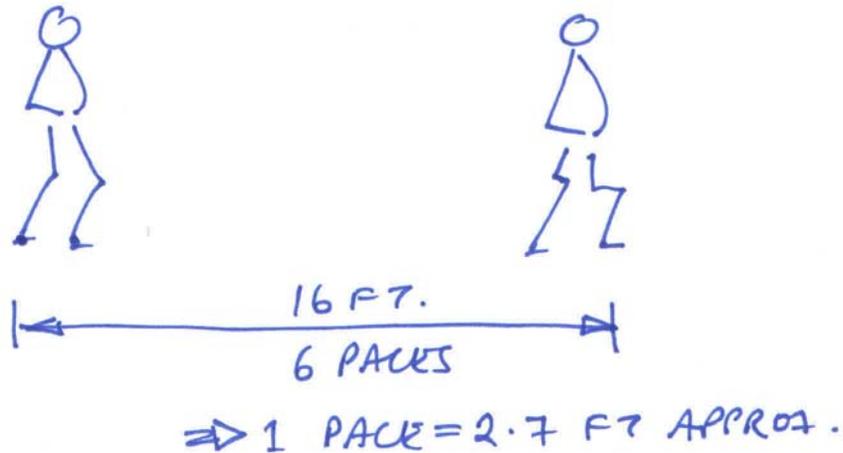

Estimating deck area
What you are looking for is the number of paces squared (="square paceage") and then you can convert that to square feet. The easiest way to measure your deck surface is to mentally divide it up into rectangles. For each rectangle, the length in paces multiplied by the width in paces gives the area in square paces for that rectangle. Now add up the area for all the rectangles and you have the total square paceage of your deck.

Converting from square paceage to square footage is easy enough. Multiply the square paceage by 2.7 x 2.7, if your paces are 2.7 feet long. This turns out to be 7.3. Since it is hard to be super-consistent on pacing, this is about 7. So if your deck is 114 paces squared, then your deck area is about 800 square feet, see below.
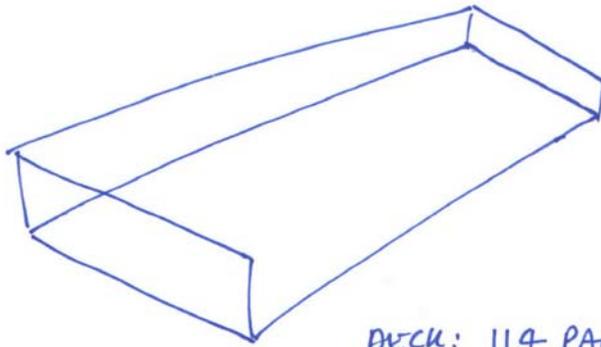
DECK: 114 PACES^2 = 800 FT^2
H'RAIL: 30 PACES = 80 LIN. FT.

Ok, you say, but my deck isn't square! Find ways to divide it up into rectangles. If your deck has a diagonal on it (i.e. it is trapezoidal), then you can work this out in three ways, see following diagram. Firstly, a trapezoid is a rectangle joined to a triangle., You know how to do rectangles, so that's easy. If you remember your math, a triangle's area is the ½ (height x length), i.e. a triangle is half a rectangle of the same length and height. Add the two areas together and you are done. Secondly, the area of a trapezoid is the length multiplied by the average of the width at one end and the width at the other end. So you could pace the length, then the longer width, then the smaller width and work it out. Thirdly, you could just walk across the width onto the triangle bit about half way, counting as you go. All three techniques get to the same result, see following diagram.
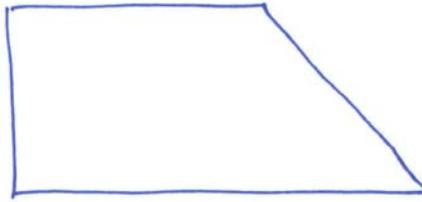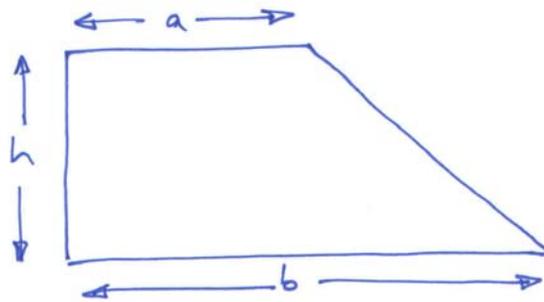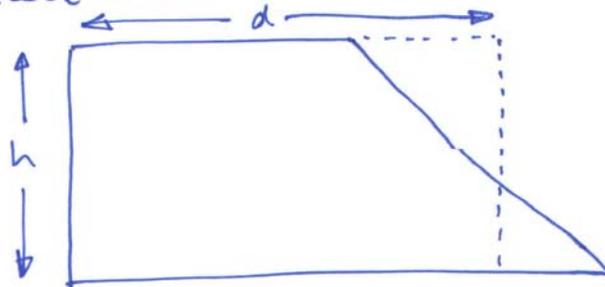
- TECHNIQUE 1: RECTANGLE + TRIANGLE
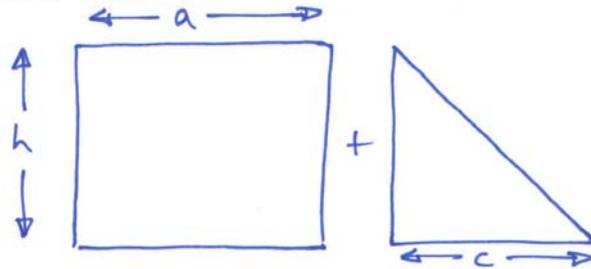
$$AREA = (a \times h) + \frac{1}{2}(c \times h)$$

- TECHNIQUE 2: TRAPEZOID

$$AREA = h \times \frac{1}{2}(a+b)$$

- TECHNIQUE 3: WALK HALFWAY ACROSS TRIANGLE

$$AREA = (h \times d).$$